ABSTRACT
OF THE
Croonian Lectures
ON THE
PATHOLOGY AND RELATIONS OF ALBUMINURIA.

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LECTURE III.

THE pathology of the lardaceous change was now discussed as of an infiltration beginning with the arteries, and afterwards involving other tissues, of a material the nature of which was a matter of much interest. It had long been known that the material with which lardaceous organs were infiltrated was nitrogenous, and did not differ appreciably in its ultimate composition from fibrine and albumen. The interest chiefly lay in the points of difference between the lardaceous matter and the healthy tissues; one of the most important of these was to be found in the relation of the morbid deposit to the alkalies. The presence of the lardaceous material could be at once detected by its reaction with iodine in a manner to be presently explained. If now the weakest solution of potash or soda, or a stronger one of ammonia, be brought into contact with the infiltrated structure, its power of reacting with iodine was at once and finally abolished, and that without any destruction of the normal tissue, or even material injury to its microscopic structure. This appeared to depend on the extraordinary solubility of the morbid deposit in alkalies, a property which Dr. Marcet took advantage of to obtain the material for analysis.

Pursuing further the relation of the alkalies to the new material, it was found that infiltrated organs, taking the liver as best suited for the comparison, were deficient in alkali, especially in potash. In a series of healthy livers the total alkaline salts gave an average of 1·0, the potash of ·209, in 100 parts. In a series of lardaceous livers the total alkaline salts averaged ·739, the potash ·169, in 100 parts. While the alkaline salts were diminished under the disease, the salts of the earths were increased. These observations had since been confirmed by some made by Dr. Dupré at the request of the Pathological Society. Comparing the mineral constituents of three healthy livers with three highly lardaceous livers, he found that with the healthy liver the potash amounted on an average to ·283 per cent., with the lardaceous to ·131 per cent. The chloride of sodium was somewhat increased in the morbid tissue.

Passing now to another organ, it was shown with regard to the spleen that parallel statements might be made. The ash of this organ had been examined in nine instances; three healthy, five lardaceous, and one of rickety enlargement. With the lardaceous change the potash was lessened, as compared to the state of health, from an average of ·311 per cent. to one of ·196 per cent. The soda varied much, but had apparently suffered no loss. The earthy salts were generally increased. With the rickety enlargement, one superficially resembling the lardaceous, though profoundly different from it, diminution was found in the earthy salts only.

Reverting to the iodine reaction by which the lardaceous tissue was ordinarily distinguished, it was described as depending on the greater absorption and retention of iodine by the morbid deposit. The supposed amyloid blue had not come within the observation of the lecturer; but the interest which pertained to this reaction, while the deposit was thought to be starchy, no longer existed now that it was known to be nitrogenous. A more obvious interest attached to the remarkable manner in which some of the normal constituents of the body could be made to yield the reaction. This could be done by imparting to them acidity. Fibrine under this influence yielded so exact a counterfeit of the lardaceous reaction that he had ventured to call dealkalised fibrine artificial amyloid matter. Fibrine dissolved in dilute hydrochloric acid gave a precipitate with iodine of the characteristic colour, and the same result could be shown on the acidified fibrine as recovered by evaporation. This manifestation of the "amyloid" reaction by certain constituents of the blood on their being transferred from alkaline to acid combination, the paucity of potash in lardaceous organs, and the extreme solubility of the morbid deposit in alkalies, which would seem to prohibit its deposition from blood of normal alkalinity—all these suggest that a deficiency of the alkaline solvent, and a consequent separation from the blood of something for the solution of which the means no longer suffice, is a rude ideal of the morbid process.

The causes of the disease were next considered. Reference was made to a series of sixty-six cases, published some years ago, which had led to the inference that the disorder was especially caused by suppuration, independently of any cachectic condition, whether tubercular, cancerous, or syphilitic, with which the discharge might happen to be associated. These conclusions were tested by a tabular analysis of 83 cases fatal in St. George's Hospital since the publication of the previous observations. Of these 60 were connected with ascertained, 4 with presumed suppuration. Cancer existed in 2, tubercle in 37, while there was evidence of syphilis, historical or pathological, in 18. Suppuration was often effective in causing the disease, when of purely local or accidental origin, as in renal stone, ovarian or pelvic inflammation, accident, surgery gangrene or bed-sores. Cachexia might be at once dismissed as not necessary to the production of the lardaceous change. Tubercle and cancer were connected with it only by means of the suppuration they so often caused. Syphilis stood in a different relation to the disorder; it was alone an adequate cause of the lardaceous infiltration, however helped by the discharge due to some of its secondary and tertiary lesions. In the table the disease was attributed to syphilis without excessive suppuration in 11 instances, while evidence or record of syphilis complicated the antecedents of 7 others.

Taking the disease as due to suppuration in the abstract, the *modus operandi* was taken into question. The infective and exhaustive results of suppuration were considered, and the lardaceous change attributed to the latter. Then as to the essential loss involved in suppuration which occasioned the result, it was inferred that of all the organic constituents of the discharge, the white corpuscles were those only which could with any probability be thought to impoverish the system by their removal. The potash of the blood was chiefly contained in its corpuscles, and largely in the white, as evident from the composition of pus. It was probable, therefore, that suppuration, which essentially consisted in the escape of these corpuscles, might produce its morbid results which were characterised by want of potash by their deficiency. Whatever were the action of the leucocytes, a discharge of pus was virtually a discharge of potash, since pus, chemically speaking, differed from blood mainly in the superabundance of this essential alkali. This loss was apparently the link between suppuration and the lardaceous deposit, and partial impoverishment of the blood and deposition of what was in relative excess presented itself as a rough outline of the process.

But besides the exhaustion of discharge, it was clear that there were other modes by which the disorder could be produced. Diminished income was as bad as increased expenditure, and defective assimilation equivalent to increased waste. Under the influence of syphilis we should be prepared to find nutrition impaired in any manner: the attenuation of its subjects showed that their food was not turned to purpose; could it be that the white corpuscles were insufficiently developed and their accompanying potash insufficiently introduced?

The organic results of the disorder, in relation especially to renal disease, were then considered, with particular reference to the irritative results of the infiltration in the setting up of tubal catarrh and intertubal nucleation, fibrosis and granulation. The occasional presence of arterial and cardiac hypertrophy was regarded as the necessary result of these secondary renal disturbances, though lardaceous infiltration *per se* had little tendency to cause uræmia, and seldom any result of this nature. No doubt the exhausting dis-

charges productive of and consequent upon the lardaceous change kept down the vascular tension and prevented its results.

The lecture concluded with a consideration of the secondary lesions associated with the lardaceous condition.

The following observations upon the treatment of the forms of albuminuria, the nature of which had been discussed in the lectures, should have formed the conclusion of the course had time permitted of their delivery:—

I have hitherto said nothing of the treatment of the disorders the nature and relations of which have occupied our attention. It would not be suitable that I should occupy the College with the details of recognised and familiar practice. But one or two points call for mention, and I have chosen to place them together, distinguishing, when needful, what applies to one state of kidney and not to another, rather than to incur the danger of repetition by annexing to each separately any reference to the measures by which it should be met.

In treating the disorders of the vital gland in question our measures must not be limited by the bounds of the materia medica. The circumstances of ordinary life—food, drink, and temperature—are to be considered as of the first importance, while the contents of the Pharmacopœia occupy the position of auxiliaries whose services sometimes decide the battle, and at others are dispensed with without loss. Therapeutics to be successful must have a physiological basis. To give rest as far as may be to an inflamed structure is an old and wise maxim; and it is not less obvious, in regard to the system at large, that if a great channel of exit be obstructed the materials which therefore tend to accumulate should be sparingly introduced. The diet with albuminuria—save with that of lardaceous origin, in which the secreting power is until late but little impaired, while an exhausting discharge may have to be obviated—should be below the custom of health in its nitrogenous components. It may abound in milk and farinaceous matters, while fish may often take the place of flesh. The increase of albumen in the urine upon a too early resort to a meat diet is a common experience. With regard to liquids, it cannot be too strongly insisted upon that the functional strain upon the kidney is not to be measured by the quantity of water which filters through it, but by the quantity of mainly nitrogenous refuse which it has to convert and eliminate. Water, which probably transudes almost as through dead membranes, probably makes little demand upon the real secretive function. The worst kidneys indeed, those most hopelessly incapable of their special work, will often discharge most of it. And it is easy to see that its passage is salutary both in the dilution of scanty and irritating urine, and also in washing out the solid products which, under the inflammatory process, collect mischievously in the tubes. A further use is to be discerned in this general law: the solids of the urine vary with its water. With given kidneys the solid excreta wax and wane with the bulk of the urine. Any means therefore—mere aqueous filtration as safely as any—which increases this will also increase the components of the secretion which are essential to life. With tubal nephritis, therefore, and scanty urine, an aqueous dietary, even with the addition of distilled water, or the element in some slightly sophisticated shape, will prove in every sense beneficial. In many, perhaps in most, cases of nephritis of tubal origin, these remedies of patriarchal simplicity—"spare diet, and spring water clear" are all that are needed to guide the disorder to its natural cure.

To this surest and safest of diuretics others must often be added, both to lessen dropsy and to avert the dangers of uræmia. The old rule is that in recent cases digitalis should be used; it seldom fails to increase the flow of urine, but I am not sure that it does not sometimes do so with some exasperation of the inflammatory action. The bitartrate and acetate of potash, which have a purgative as well as a diuretic effect, may probably be more safely resorted to. In chronic cases as much as can be done harmlessly by diuretics may be accomplished with scoparium, nitre, and juniper. Cantharides and the more irritating agents of this class are generally distinctly injurious.

Perhaps, next to a regulation of the diet, it is most important to secure a daily and somewhat loose action of the bowels. Purgatives lessen the vascular tension, which in both acute and chronic cases, is a measure of their danger; and while it is not advisable too largely to divert the urinary fluids by severe catharsis, increased hardness of the pulse and other more obvious aggravations of the general state seldom fail to ensue upon constipation. When cerebral uræmia is threatening, hard purging by elaterium or otherwise is essential. As an habitual laxative a drug less used than it deserves to be—sulphate of potash,—given two or three times a day, in doses of from ten to twenty grains, is sometimes invaluable. It may be aided, if necessary, by Epsom salts or cream of tartar. This, or these, in their laxative action clear the obscured or blood-spotted retina and remove mists from the field of vision, slowly and not always completely, but in a manner which affords a remarkable contrast to the inutility of iron in this respect, and gives testimony as to the use of alvine evacuation in lessening the arterial tension of which such lesions are the index. The chronic headache of the granular kidney is often similarly and equally relieved.

While by such means the system is enabled to dispense, as far as may be, with the renal function, it must be asked whether, particularly in circumstances of recent inflammation, anything can be done directly towards the cure of the injured organs. Discarding counter-irritation as a method of punishing the skin for the errors of organs for which it is not responsible, it must be admitted that, beyond ensuring sufficient irrigation of the tubes, our chief endeavour is to provide the gland with leisure to cure itself. But it is worth mention—especially in relation to a rapidly fatal form of nephritis, in which the tubes become widely sealed up, as if filled with molten glass, by a pseudo-croupous exudation of fibrine, the urine being almost suppressed, while the little that is passed is loaded not only microscopically, but, as a bulky precipitate, with large fibrinous cylinders—that all plugging of the tubes from this cause can be prevented by the administration of alkalies. Alkaline urine is a solvent for fibrine, and with this in process of secretion the exudation retains its fluidity, and whatever harm it is capable of doing by solidifying in the tubes is obviated. The experiment is easy of trial. However numerous fibrinous casts may be—and I need not say that this term comprises all that are usually passed,—they will, upon the alkalescence of the urine, quickly cease to appear, to return again with its acidity. There are cases in which such relief to the tubes must avert a pressing danger, but it is disappointing to recognise, as I fear we must, that the process of renal inflammation is seldom so simple as to admit of cure by this means.

I may say a word touching the use of iron. The impoverishing effect of albuminuria, possibly from the destructive action of the retained refuse upon the blood-corpuscles, produces a pallor which cannot but suggest this remedy; and in recovery from attacks of renal inflammation none is more helpful. But a medicine which is effective for good is generally, and in somewhat the same measure, effective for harm; and iron in chronic albuminuria needs to be administered with more discrimination than it, perhaps, always receives. With high vascular tension, such as belongs to the granular kidney, with a hard pulse for its sign, an enlarged heart, retinal mischief, and possibly persistent headache and nausea as concomitants, iron, however seemingly indicated by the look of the patient, is generally injurious unless most guardedly anticipated and counterpoised by aperients. The perchloride, among other salts, is often of especial service in dropsy; but where the vessels are not thus relieved and the symptoms which threaten are uræmic, this drug is generally better withheld. In any condition it seldom fails to do harm if allowed to constipate—a result which may be obviated by mixing the ferruginous salt with sulphate or bitartrate of potash.

In the treatment of granulation or lingering nephritis climate should take no secondary place. Every organ of the body, according to the teaching of ancient medicine, was subject to a separate planetary or celestial rule—a fancy which has at least this much of truth, that functional activity, and with it the liability to disease, are apportioned among the eliminating organs largely by external temperature or solar influence. In the tropics the stress falls upon the skin and the liver; in the temperate zone upon the lungs and the kidneys. The comparative exemption of the kidneys from disease, save of the lardaceous kind, appears, as far as our evidence goes—and the experience of our

ubiquitous race makes it tolerably extensive,—to be common to the warmer latitudes; and the inference that under the same atmospheric influence chronic albuminuria, when not of lardaceous origin, would find perhaps, not organic cure, but at least systemic relief, has been amply justified by recent experience.

Not to dwell upon the treatment of cerebral uræmia, in which the uses of drastic purging and forced diaphoresis are sufficiently well known as lessening the uræmic state, while means of controlling nervous irritability, the bromides, chloral and chloroform, are helpful as withholding its convulsive effects, I will say a word upon the less trite topics, the prevention and possible cure of the lardaceous condition.

This condition is one in which medicinal treatment would seem to be suggested by the nature of the morbid change, and encouraged by a tendency to natural recovery which the disease, even in an advanced stage, will sometimes exhibit. But with the curative power inherent in the human frame, not in this case, however, so often successful as might be wished, comes the ever-present vice of therapeutics, the attributing to art what belongs to nature—a possibility of error which will probably never cease to increase the confidence of the confident practitioner, and the distrust of him who, in one sense more foolish, is wise enough to doubt.

When the disease is consequent upon syphilis, iodide of potassium is of marked effect in lessening the organic enlargement and ameliorating its other effects. Sometimes, when a long-continued suppuration has come to an end, or greatly diminished, a retrogression in the resultant disease can be slowly followed, though no antidotal drugs have found place, if only the diet of the patient be liberal and his general surroundings favourable to health. The special remedy which pathology suggests, one which of late years I have used often and largely, is potash. I have found, in the first place, that under lasting suppuration potash salts can be given, not only without the depressing effects which sometimes attend their use, but to the improvement of the general health, and with the absence of lardaceous symptoms, which, in the circumstances of the case, would be at least a probable contingency. Further than this, I have given the salts of potash alone, or with quinine and iron, where visceral swelling, diarrhœa, and albuminuria have betokened the disorder in an advanced shape. Under such treatment the liver and spleen have become measurably smaller, the urine less albuminous, the patient has gained flesh and weight, and all the symptoms have ameliorated. But chemicals put into the stomach are not brought to bear upon the tissues as if the treatment of disease were conducted in a test-tube, and the cure is at best but a slow one. It is further obscured, or possibly simulated, by the shrinking which the swollen organs sometimes naturally undertake. The most striking instance of recovery under treatment which has come under my notice was one in which the disease was associated with syphilis, and the treatment correspondingly modified. Great enlargement of the spleen and liver, albuminuria, diarrhœa, and emaciation, gave evidence of the disorder in a degree of seemingly hopeless severity. Iodide of potassium was given, with potash and its vegetable salts. The patient was apparently cured; and on his death from an accidental cause, three years afterwards, the viscera has returned to their natural size and shape, and only such traces of the lardaceous change were discovered as to warrant the belief that he had once had more of it.

On the whole, reviewing my experience in this matter, I am bound to admit that the administration of potash by itself has proved, I will not say useless, but disappointing; less effective than pathological inference would lead us to hope.

As to the use of remedies of the restorative and tonic class—iron, quinine, and cod-liver oil—there is unequivocal evidence. If the deficiency of potash be connected, as I have ventured to surmise, with a loss or insufficient development of leucocytes, the disorder may perhaps be more appropriately met by means which promote their formation rather than by the mere introduction of material which, in the deficiency of these essential elements of nutrition, perhaps cannot be turned to vital purpose.

The measures I have commonly, and numerous experience justifies me in saying beneficially, used, have been liberal diet with beef-tea, Liebig's extract, and vegetables, all of which abound in potash salts, together with liquor potassæ, phosphate of potash, iron, quinine, and sometimes cod-liver oil. The alkaline remedies have been urged with the most advantage during the persistence of suppuration.

ON THE TREATMENT OF SEVERE SPRAINS.

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"SEVERE sprains are often serious fractures, though no bone be broken, or only a bit may be chipped off; the ligaments and fasciæ are ruptured, blood being extravasated into the joints, into the sheaths of tendons, and for some distance not infrequently between the layers of muscles. The swelling is great, the pain intense. The orthodox treatment by leeches and fomentations is valueless, compared with circular compression and perfect immobilisation."*

Personal experience only adds strength to this opinion, and yet the orthodox antiphlogistic treatment continues to find favour with authorities. To quote one of the most recent and distinguished: "As to severe sprains, at first, while the active state of effusion is present, antiphlogistic measures are necessary. Where it is grateful to the patient, the sedulous application of ice-bags is, I think, the best; but if this is not tolerated, leeches, followed by warm fomentations or evaporating lotions, or irrigation with spirit and water, will best check the tendency to effusion. As soon as the patient can bear it, equable pressure by strapping and bandage or by splints, with perfect rest, should be adopted."† Not only can the patient bear well-applied pressure from the first, however great the swelling and acute the pain, but it may be laid down as a general proposition, to which I have never seen an exception, that, in severe sprains, effusion is most surely checked, and, once it has occurred, its absorption is most rapidly promoted, while pain is most effectually relieved, by pressure and immobilisation. It is as true now as when Velpeau taught it, that "compression is the sovereign resolvent in contusions with infiltration and swelling."‡

By way of illustration, I may briefly relate the progress of a case in which I was consulted by my friend and colleague Mr. John Clay. His patient, an elderly gentleman, had recently sprained his right ankle in going over a ploughed field. As he had a policy in one of the accidental insurance companies, its medical officer saw the case, and he advised an incision to give vent to matter, which he thought had formed in the centre of the swelling. In this advice he was sustained by a hospital surgeon, who was additionally called in on behalf of the company. Mr. Clay, dissenting, invited my attendance. I found the right ankle hot and exquisitely painful. It was so much swollen that its circumference over the heel exceeded that of the corresponding sound joint by nearly an inch and a half. The skin on the outer side of the ankle was especially hot, red, tense, and shining; palpation in this situation communicated a feeling of elasticity closely simulating, but not amounting to, fluctuation. With Mr. Clay's concurrence and assistance I enveloped the limb from the toes to the knee in fine cotton-wool, applied well-moulded pasteboard splints on each side, bandaged with methodically uniform compression, and starched the outside. A second consultation was held in the course of three days, when I found the patient very much easier. He had had a good night's rest and had been able to turn over in bed, and could bear the limb lifted and put down again without pain. On opening the apparatus in front I found the swelling had considerably decreased; the previously red skin was yellowish and shrivelled like the skin of a late russet apple, not looking, as at my first visit, like the red shining skin of a prime Blenheim. That shrivelled look is always a good sign. I pared the edges of the case, and readjusted with firm

* On the Treatment of Fractures of the Limbs, by Sampson Gamgee (London, Churchill, 1871), p. 153-3.
† A Treatise on Surgery, by T. Holmes. London, 1875, p. 257.
‡ "Le résolutif par excellence dans les contusions avec infiltration et gonflement, c'est la compression."—Velpeau, Leçons Orales de Clinique Chirurgicale, Bruxelles, 1841, p. 428.

pressure. Three days later more shrinking was met by fresh paring, and still firmer bandaging. At a consultation held a fortnight after the first, the patient was perfectly easy. No one thought any more about puncturing in search of matter. The insurance company compromised the affair by paying down a substantial sum of money, and I replaced the pasteboard apparatus by strapping the joint with emplastrum elemi spread on leather, and a Churton's bandage applied with smooth firmness. When I last saw the patient with Mr. Clay, he was walking about his garden with a stick; the plaster had been very properly removed, and the swelling had subsided, the only difficulty to locomotion being stiffness of the joint. I cracked the adhesions by using the requisite amount of well-applied force, and we concurred in advising free use of the joint. In a note which I received from my colleague seven weeks after our first consultation, he wrote: "Our patient is progressing very satisfactorily; he comes to business every day, walks about a good deal, and does not require surgical supervision."

The case is a typical illustration of the proposition that severe sprains require immediate compression and absolute immobilisation.

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CHEIRO-POMPHOLYX.

Notes of a Clinical Lecture on "a Recurrent Bullous Eruption on the Hands," written out in April, 1871, and now printed verbatim.

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THE hands are liable to an eruption of vesicles and bullæ which occur under somewhat peculiar circumstances. Slight forms of the malady which I am about to describe are tolerably common; severe forms are rare; and cases rising to the severity which the disease assumed in Miss G——'s case are extremely infrequent. I have never seen a case which paralleled this; but I feel sure that it differed from others in degree only, and not in kind. The most severe forms which I have seen have always been in women, and usually in association with a highly nervous temperament. The disease appears to be characterised by rapid and symmetrical development, by tendency to spontaneous cure, and by liability to recur over and over again in the same individual. The hands are the parts first affected; the feet come next; and in a few instances a rash appears over the whole body. In the majority of cases the hands alone suffer, and in all they are the parts most severely affected. A tendency to spontaneous absorption of the fluid contained in the vesicles or bullæ, even when the latter are very large, is a very remarkable feature. I think that the disease must certainly be regarded as a neurosis. It is not connected with any local cause, nor is it influenced by local treatment, nor have I ever seen any reason to suspect that it depended upon articles of diet or upon any drug which had been administered.

The eruption in question begins with intense burning and itching on some part of the hand, usually between the fingers. After a short time—a few hours or a day or two—there are seen, deeply placed in the skin, small accumulations of clear serum, looking like sago-grains. These are perfectly transparent, and not unfrequently resemble the vesicles of scabies sufficiently to excite suspicion. They differ, however, from those of scabies in being much more deeply placed, having flatter tops, in being usually closely grouped instead of scattered, and in the entire absence of burrows. The itching and burning are very similar in the two. After a few days, in almost all cases, these vesicles dry up, and the disease is at an end, although probably a little inconspicuous desquamation of epidermis will follow. The disease in this mild form is so common that I suspect almost everyone will recognise its description. Many have probably had personal experience of it. In some it occurs during hot weather; and, now and then, violent exertion may have seemed to produce it. But in most instances no cause for its occurrence can be assigned. Those who have had it once will very probably have it again; and several of the facts in its clinical history coincide pretty nearly with what is true of herpes of the lips and herpes of the prepuce. I do not recollect ever to have seen a well-marked example of it in a patient under the age of puberty, nor in a very old patient. All that I have seen have been young adults or in middle age.

It will be noted that the remarkable tendency to speedy and spontaneous disappearance, leaving the skin quite sound, supplies a feature of positive difference from eczema, of which the indefinite duration and the tendency to persist and become aggravated are such marked characters.

Many authors have, in their description of the forms of eczema of the hands, used terms which apply to some of the symptoms of this disease; but I am not aware that anyone has drawn attention to its distinctive features—symmetry, spontaneous cure, and liability to relapse.

CASE 1.—Mrs. C——, aged twenty-five. The eruption began to come out on April 10th (on the left hand), and was accompanied by great itching. It has gradually increased since.—*Present condition* (April 15th, 1871): The palm of the left hand and the palmar aspect of the fingers and thumb are covered with closely packed vesicles of various sizes. Most of the vesicles seem deeply placed, contain clear fluid, and give a shotty feel to the finger. They are not arranged in lines, show a tendency to run into one another, and there are no burrows to be seen. Over the ball of the thumb the vesicles are more distinct and more elevated. In the palm itself, longer, irregular elevations of the skin occur. The whole surface somewhat resembles blistered steel. The back of the hand is not so much affected, the fingers only having suffered. Between the fingers the eruption is copious, and consists almost entirely of small elevated pearly vesicles, varying in size most remarkably—from that of a pin's point to that of two pins' heads. The whole hand and fingers are much swollen, but this is most perceptible on the back of the hand; the swelling is so great that she has been obliged to cut her wedding-ring. The eruption is now attacking the lower fourth of the front of the forearm. The right hand began to be attacked this morning. There is a broad band of vesicles passing from the hollow of the middle of the wrist in a curved direction around the base of the ball of the thumb to the root of the index-finger. There is a small group on the front of the outer border of the base of the thumb, and another between the little and ring fingers. There are some on both sides of the thumb and on both sides of all the fingers. The ulnar border of the hand is scarcely at all affected. There is no swelling of the right hand. She complains much of "burning like fire" in the left hand and of itching in the right.

She considers herself to be nervous, easily frightened and surprised by sudden noises &c. Says she has never had "hysterics." She is married, and has two children, the youngest two years old. Menstruation regular. Last Saturday, whilst at marketing, she held a yellow leather purse in her left hand. The purse was of a bright yellow colour, and the dye came out on the skin; the colour has remained ever since, although she washed her hand as usual for two days after Saturday. She had had the purse two weeks at that time, but had not before held it in her hand so long.

CASE 2.—Miss G—— is now aged forty-three. She has been liable to the eruption I am about to describe for the last twelve years. She is of fair complexion, spare development, and highly nervous organisation. When well she is of active habits, but for the last twenty years nearly half her time has been taken up with ill-health. She has never been positively hysterical, but the peculiar nature of her maladies has often led her friends to suspect exaggeration. About the reality of her skin eruption and its severity there can, however, be no sort of doubt, and it is but reasonable to allow it to give support to her statements as to suffering in connexion with less obvious maladies. Her main complaint is of a kind of hyperæsthesia which causes her to ache all over, and which renders her unable to touch anything or to encounter the slightest pressure without pain. Thus, when at the worst, she can neither sit nor lie in comfort, and cannot permit her arm to rest for a minute on the table without its causing the skin to become extremely painful. At her best she is a good sleeper, but when the hyperæsthesia is on she is prevented from resting by the

impossibility of finding a position which is comfortable for more than a few moments. This condition is attended by an irritability of manner, a proneness to dwell upon her complaints, and a tendency to attach importance to seemingly little things, which have caused her friends some anxiety as to whether her ailments might end in mental disturbance. When ill she is indisposed for exertion, and much depressed in spirits. She is herself under the conviction that place of residence has much to do with her disorder, and that she is always worse when living in a damp and chilly air. She has varied her residence frequently, and often with apparently great benefit; but, on the other hand, attacks have come under very various circumstances.

There is nothing special to be said as to family history. Her parents are both upwards of seventy, and in good health, and none of her numerous brothers and sisters have had any form of nervous disorder.

It is about twelve years since Miss G—— first became liable to a severe eruption on her hands and feet, and she has had about ten attacks of it. At first a year or two would occur between the attacks, but lately sometimes two have happened in six months. There was nothing special in the first, and its cause could not be conjectured. Usually she experiences premonitory symptoms, such as a general sense of discomfort, with burning of the hands and feet, for a week or two before the eruption comes out. Then deeply-placed effusions of serum occur under the epidermis of the sides of the fingers, producing the appearance compared to sago-grains. With this there is general redness of the palms and soles, and great burning and itching, with sense of stiffness. In a few days the vesicles develop and coalesce, and at length numerous bullæ are formed, looking much as if liquor vesicatorius had been used. At the time that the hands are thus affected there is usually a red lichenous rash over the whole body, which varies much in colour at different parts of the day, which never passes into vesicles, but which always causes subsequent desquamation. The feet are always affected in a much slighter degree than the hands, and no vesicles or bullæ ever show themselves on other parts.

I first saw Miss G——'s eruption in consultation with Dr. Ransome and Dr. Marshall Hall Higginbotham at Nottingham. The condition in which her hands then were has been very accurately delineated in the accompanying drawing by Mr. Burgess, whom we sent over for the purpose. The bullæ were so precisely like artificial blisters, and so unlike any ordinary form of skin disease, that the doubt suggested itself to most as to whether they could possibly have been produced intentionally. This doubt I set at rest by proposing quite unexpectedly to her to examine the feet also, when we found on them, not large vesications, but a few scattered and small vesicles, which were symmetrically arranged, and could not have been artificial.

Further proof the genuineness of the case was afforded when I had, six years later, the opportunity of watching her through another attack. It should be added that the eruption is often attended by follicular sores in the mouth. The rash on the hands is transitory, and that on the hands and feet never remains more than a few days at its height. If the vesicles are not pricked the serum will be removed by absorption, and the epidermis, much thickened and discoloured, will return again into position. If the bullæ are pricked superficial excoriations result, but no scabs or crusts ever result. The hands, in the course of three weeks or so, are restored to their natural condition. The nails, as might be expected, show deep furrows across their surfaces as the results of the attacks. No treatment has ever appeared to much influence the attacks. Miss G—— has consulted many medical men and has taken arsenic and many other drugs without material benefit to her health. In 1869 Miss G—— had a fever, and was very ill. After it for six months her health was unusually good. At Christmas, 1870, she had a moderately severe attack of the eruption. It did not come out so freely as usual, and after it the health did not improve. She remained through the first two months of the year still feeling ill and uncomfortable, and in March whilst staying in London her enemy again made its appearance, and she went through a severe attack. The eruption on the hands lasted about ten days. It affected, as it had previously done, the thumb and radial fingers much more severely than the ring finger and little one, the last indeed was almost exempt. Miss G—— has never had rheumatism, and it may be noted as an interesting point that she is not liable to colds, and does not know what a bad cold in the head is. Do the explosions of eruption take the place in her of the bad periodic catarrhs to which many are subject?

CASE 3. *Bullous eruption on the hands, relapsing through thirty years and occurring on no other parts, and usually undergoing spontaneous cure.*—Dec. 13th, 1867: A married woman, apparently in good health, attends on account of an eruption on the palms of the hands and between the fingers. The eruption comes out as large vesications, some of them as large as shillings, and with a certain amount of inflammatory swelling of the whole hand, back and front. The vesications quickly break and dry up, and leave large denuded patches like those of psoriasis palmaris. In the palms of the hands these patches could not be distinguished from psoriasis palmaris, but on the fingers they are more like eczema. On the sides of the fingers there are numerous little minute vesicles, which tend rather to dry up than to break, and resemble those which we have previously described in other cases in connexion with nervous disturbance, &c.

Her history is that she has been liable to the eruption for thirty years. The first attack was at the age of twenty, two years after her marriage, and she has had numerous attacks at irregular intervals since. She has attended twice before at this hospital (Skin Hospital), the last time four years ago. She has not observed any connexion of the attacks with lactation. She has had a family of fourteen children, of whom nine are living. The attacks do not appear to have been connected with any special time of year. She complains that when the eruption comes out she is usually very low-spirited. When the attacks are slight, they get well spontaneously, but on several occasions they have lasted two or three months, and required treatment. It has never occurred on the feet, and has never passed higher than the wrists. She lives at Hackney. Ordered mixture of arseniate of potash, one drachm three times a day, and mercury-and-lead ointment.

Syphilis may simulate all varieties of skin eruption, and now and then, I believe, one closely resembling this in some of its features occurs in connexion with this cause. But there are marked differences in the clinical history. Although the vesicles come out on the fingers, and itch intolerably, and although they look exactly like what I have described, they do not disappear so quickly—indeed, they may persist for months. It is exactly so in the very rare cases in which an eruption like herpes zoster is produced in connexion with syphilis; such forms of herpes are persistent, not transitory. The best-marked example of bullous eruption on the hands from syphilis which I have ever seen occurred to a German gentleman of middle age, who had undoubtedly had syphilis. For many months crops of these vesicles kept coming out on his hands, so frequently that he was rarely free from them. He had been in the first instance treated for scabies, but with no benefit. The eruption never appeared on other parts, and after a long anti-syphilitic treatment he got well.

THE COCA LEAF.

OBSERVATIONS ON THE PROPERTIES AND ACTION OF THE LEAF OF THE COCA PLANT (ERYTHLOXYLON COCA), MADE IN THE PHYSIOLOGICAL LABORATORY OF UNIVERSITY COLLEGE.

BY G. F. DOWDESWELL, B.A.

THE leaf of this plant has been known in Europe from the time of the Spanish conquest of Peru, and from time to time attracted attention, but systematic investigation of its properties is wanting. A statement that it was chewed by Weston in his recent pedestrian feat, though contradicted by him, has again excited an interest in it. The earliest account of it is that given by Dr. Monardes, of Seville, published in the year 1569, of which a translation appeared in London in 1596, and as it is of historical interest, and the article on Coca is short, it is subjoined

entire*. Its botanical characters appear first to have been described by Clusius in 1605 (Weddell), after which specimens were procured from the country by Joseph de Jussieu, described by Antoine Laurent de Jussieu in 1749, and by him referred to the genus Erythloxylon, so termed from the red colour of the wood of some of the species. It was subsequently described by Lamark in his Encyclopedie† as Erythloxylon coca, the name "coca" being from the Indian "khoka," signifying a tree or plant (Tschudi), in reference to the estimation in which it is held by the natives. It grows wild on many parts of the Andes, and is extensively cultivated in several districts on their eastern slopes. Its use and cultivation in the country dates from its earliest history, from the time of the first Incas‡ (Poeppig, Stevenson), who found it in use amongst the primitive people on their first invasion, and who adopted its use. At first they appear to have reserved it for religious rites and the use of the Sovereign, with a few others who were admitted to that honour, and to this day it is regarded with superstitious reverence by the Indians, who put its leaves in the mouths of their dead to secure them a favourable reception in the next world. (Tschudi.) It was used by the Peruvians as a medium of exchange, and, on the introduction of gold and silver, became a principal article of commerce. The Spaniards at first, upon the conquest of the country, were opposed to its use, and edicts were promulgated against it, the Spanish Council at Lima in 1569 denouncing it as "elusio del demonio"; but they soon found it to be a source of revenue, as the mine-owners discovered its value in sustaining labour, when its cultivation was promoted, and subsequently largely extended by the employment of forced labour, till the numbers of the Indians began to diminish, when the oppression was abolished, and for a time its cultivation decreased.

In the present day it is extensively cultivated in the manner fully and carefully described by Dr. Weddell (*op. cit.*), the well-known botanist of Paris, who, during his travels in Bolivia, visited a "cocal" (plantation) for the purpose of observing the details; also by Poeppig and others. The plantations on the slopes of the Andes, where its cultivation succeeds best, are situated at a height of from 2000 to 5000 feet above the level of the sea, where the temperature is equable, at about 18° C. At a higher elevation frosts are liable to kill the plants; and a temperature above 20° C. weakens them, the leaves becoming dry and inferior. A light friable soil, free from stones, similar to that of the coffee and tobacco plantations, is requisite. It is propagated from seed, which is carefully selected, and sown in rows in the seed-beds in the month of November. The young plants are constantly irrigated and carefully weeded. When about eighteen inches high, in the month of February in the second year, they are transplanted to the permanent beds, at intervals of about eighteen inches in the rows, which are at the same distance apart. In some plantations maize, or the small bottle-gourd, is sown between the rows. They still require constant weeding, which entails extreme labour, and is performed thoroughly every three months and partially at the end of each month. It forms a bushy shrub from six to eight feet high when cultivated, though wild it is said only to attain about half that height. It is fully described in the Companion to the Botanical Magazine (vol. ii., p. 25), and figures are given of the leaf, flower, &c.

A distinguishing characteristic of this plant is that the leaf has two longitudinal arched lines, one on each side of the mid-rib, meeting together at either extremity. These are mere marks occasioned by the folding of the leaf in the bud; they are unconnected with the veins, and totally distinct from the ribs in the Gentian tribe. They are not very strongly marked, but are more conspicuous on the under than on the upper side, and best seen by transmitted light. This appears to be a generic character. The leaf is of a delicate bright green, lighter on the under than the upper side, variable in size, being from one to three inches long, thin in texture, drying perfectly flat without distortion. The fruit is a one-seeded oblong berry, of the size of a large pea, dark red when ripe. These, as the writer has learned, are eaten with maize by the Peruvians, and regarded as a highly stimulating and nutritive food.

There is now (April 15) a specimen of the plant in flower in the Tropical Conservatory at Kew, as also another species of the same genus, E. obtusum, the leaf of which is much larger, but presents the same characters. There is another specimen in the Economic House of the Royal Botanical Society's Gardens, Regent's-park; but it does not grow freely in this country, bearing but very few leaves, and requiring a much higher temperature (65° to 75° F.) than in South America. While fresh they have an agreeable, somewhat aromatic, odour, which is lost when they have been kept for any length of time, and which is the test of their quality. There are six species of the genus in the country, some others of which, as well as E. coca, are used for chewing (Martius).

It bears a crop of leaves twelve to eighteen months after transplanting. In some districts it affords three or even four harvests in the year, the principal and best being in March, immediately after the rains, the poorest in July. So effective is the operation of irrigation that Dr. Weddell states he has known a plantation well watered after the leaves were stripped bear a second crop in forty days, but inferior in quality to that produced in the natural course.

The gathering, drying, and preservation of the leaves demand great care, their value and active properties de-

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* *Joyful Newes out of the New-found Worlde, wherein are declared the rare and singular vertues of divers Herbs, Trees, Plants, Oyles, and Stones, with their Applications as well to the use of Physick as of Chirurgery, &c.* The Three Books of Doctor Monardes, of Sevill. Englished by John Frampton, Merchant. (London: 1596.)—OF THE COCA.—I was desirous to see that hearb so celebrated of the Indians so many years past, which they call the Coca, which they sow and till with much care and diligence, because they use it for their pleasures, which we will speak of. The Coca is a plant of the height of a yard, little more or less, it casteth leaves like to Arrainan, somewhat greater, and in that leaf there is marked another leaf of like form, with a line very thin; they are soft, of a color a light green, they carry the seed in clusters, and it cometh to be red when ripe, as is the seed of Arrainan when it is ripe. And it is of the same greatness when the herbe is seasoned that it is to be gathered; it is known of the seeds that it is ripe when it is of some redness like to a blackish color, and the herbe being gathered is put into canes and many other things that they may dry, that they may be kept and carried to other parts. For that they carrie them from the high mountaines to other places as marchandise to be sold, they barter and change them for Pantelles and cattel and salt, and other things which run like money amongst us, they plant the seed in Almaceys, and from that they take them up and set them in other places, into earth that is well laboured or tilled, and made convenient to set them in by their lines and order as we do set here a garden of beanes or of peason. The use of it amongst the Indians is a thing general for many things, for when they travel by the way for neede, and for content when they are in their houses they use it in this form. They take cockles or oysters in their shells, and burn them and grind them, and after they are burned they remain like lime, very small ground; then they take of the leaves of the coca, and chew them in their mouths, and as they chew it they mingle with it some of the powder made of the shells, in such sorte that they make it like a paste, taking less of the powder than of the herbe, and of this part they take certain small bundles rounde, and lay them to drye, and when they will use them they take a little ball in their mouthes, and chew it, rolling it from one place to another, procuring to conserve it all that they can, and that being done they take another, biteing it all the time they have neede, which is when they travel by the way, and especially if it be by ways where there is no meat, nor plentie of water. For the use of these little balls taketh hunger and thirst from them; they say that they receive substance thereby as though they did eat meat. At other times they use them for their pleasure, although they labour not by the way, and they use the same coca alone, chewing it and turning it in their mouths, from one side to another, until there is no virtue remaining in it, and they then take another. When they will make themselves drunke, and be out of judgment, they mingle with the coca the leaves of the tabaco, and chew them together, and goe as they were out of their wittes, or as if they were drunke, which is a thing that doeo give them great contentment to be in that sorte. Surely it is a thing of great consideration to see how desirous the Indians are to be deprived of their wittes, and to bee without understanding, seeing that they use thus the coca with the tabaco, and al to this end, that they would be without understanding, and have their wittes taken from them as we sayde in the seconde part, when we treated of the tabaco.

† Encyclopedie Méthodique Botanique, 1786. Other works referring to this plant consulted by the writer are—1. "Disertacion sobre las Virtudes de la famosa Planta del Peru nombrada Coca," Lima, 1794, by the Doctor Hippolyte Unanuie, Proto-Medico of Peru, &c. 2. A Narrative of Twenty Years' Residence in South America, &c., by W. B. Stevenson, formerly Private Secretary to the President and Captain-General of Quito, &c. Edinburgh, 1825. This work should not be difficult to procure, but does not appear to be in the British Museum. There is a copy of it in the Bodleian. 3. Reise in Chile, Peru und auf dem Amazon Strom wahrend der Jahre, 1827-32. Von Ed. Poeppig. Leipzig, 1835. 4. Reise in Brasilien, &c., aus den Jahren, 1838-42. Von Johann Jacob von Tschudi. St. Gallen, 1840. 5. Humboldt's Personal Narrative of Travels to the Equinoctial Regions of the New Continent, &c., during the years 1799, 1804, &c. 6. The full and excellent account in Voyage dans le Nord de Bolivie, &c., par le Docteur H. Alg. Weddell. Paris, 1853. 7. A Pamphlet, "Sulle virtu Igieniche e Medicinale della Coca e su li Amisuti Nervosi in generale." A Prize Essay, by Dr. Mantegazza, published at Milan, 1859, of which there does not appear to be a copy in any of the public libraries, but an epitome of it is given in Schmidt's Jahrbücher for 1859, vol. 104, and more fully in the Annali Universali di Medicina for 1859, vol. 207 (Milan). 8. There is a good popular account of the plant in Johnston's Chemistry of Common Life. 9. A full botanical description and an abstract of Poeppig's account of it in Sir W. J. Hooker's Companion to the Botanical Magazine, 1835-6, vols. 1 and 2. 10. A general account of the plant and its properties, as far as was then known, in the Pharmaceutical Journal for 1855, vol. 14 and for 1860, second series, vol. 1. 11. And by Dr. C. F. Ph. v. Martius, Beitrage zur Erythloxylon, 1840. 12. Also in Reise in Brasilien, by the same author.

‡ For their history, see Prescott, History of the Conquest of Peru.

pending on their not being bruised nor injured. In this women are largely employed, and in some plantations the leaves are cut from the branch by the nail, instead of being stripped and thereby crushed. They are carried away in baskets and spread out to dry on the floors in courts of the houses, and then packed in bales in which they are pressed by treading, the bales (cestos) weighing each 24 lb. The produce of a plantation varies greatly. Each bed (cato), measuring thirty metres a side, is estimated by Dr. Weddell to yield in a good harvest from eleven to twelve cestos, which is equal to 264 to 288 lb., or about 900 lb. an acre. The annual produce of the district of Yungas alone he estimates at 400,000 cestos, or 9,600,000 lb., the money value of which in the country would be about £45,000, taking it at one shilling per pound.

The dried leaves are commonly chewed by the natives of the country; they are used both to sustain strength and appease hunger in the absence of other food, and as a stimulant or narcotic in the same manner that opium, tobacco, and alcohol are used in other countries. They are carried in a small pouch, termed huallqui or the chuspa, with some finely powdered lime, or in some districts the ashes of the Chenopodium quinoa, or other plants, in a little gourd flask—Ishcupura—together with a small slip of wood. When an Indian wishes to chew he forms a roll of the leaves in his mouth with the tongue, moistens the slip of wood, dips it into the lime or ashes, and presses it on the roll of leaves. This brings out the flavour, and is said to excite a flow of saliva.* The operation is repeated until the leaves are exhausted. It is generally stated that the saliva is always swallowed, but Tschudi asserts that it is partly expectorated and partly swallowed. In some districts, instead of a slip of wood, a needle passes through the stopper of the gourd (Poeppig), and this is used in the same manner as the wood. The Indians generally stop work three or four times a day to chew, sitting or lying still and silent during the operation, which is stated to last about a quarter of an hour. The quantity of leaves consumed by an Indian in a day is put at from one ounce and a half to two ounces, but as fifty grains of the dried leaf is as much as can be conveniently taken into the mouth at one time, and it requires fully an hour to exhaust this quantity by chewing it with lime, there is obviously a mistake in this statement. It is, however, said that the miners and post-runners with some others, chew continuously, when no doubt the quantity consumed in the day would be large. Its use is referred to by Humboldt (*op. cit.*, ch. xxiv.), who, in a dissertation on geophagy, appears to have mistaken the use of the lime which is chewed with the leaf. He states that in several parts of Peru he saw lime in very fine powder sold in the markets as an article of food, that when eaten it was mixed with the leaves of the coca, and that on this the Indian miners subsist for days; but considers that it acts by exciting the secretion of saliva and gastric juice, deceiving the appetite, but affording no sustenance, and compares its use to that of clay in other parts of the country or of betel in India.

All accounts, without exception, agree in attributing great and marvellous powers of endurance to its use. Poeppig, though dwelling on its deleterious effects, states that the miners chewing it every three hours with only a handful of maize perform for twelve long hours the severe work of the mine such as no European could effect, and that an Indian runner will carry a load of a hundredweight for ten leagues over rough roads in eight hours by its aid alone. Tschudi speaks more strongly to its effects: he states that he himself found that it assisted respiration greatly, enabling him to ascend the mountains with ease when hunting; and mentions the case of an Indian employed by him in some piecework, who laboured for five days and nights, taking no food and only sleeping two hours nightly, but chewing the leaf every two and a half to three hours, and then on foot accompanied and kept up with himself on a mule a journey of twenty-three leagues, only stopping to chew; and this man was sixty-two years old. Stevenson asserts that the natives in the mines and travelling derive such sustenance from chewing these leaves that they frequently take no food for four or five days, though constantly working; that they had told him that with a good supply of leaves they felt neither hunger, thirst, nor fatigue, and that without inconvenience or injury they could remain eight or ten days without sleep. He states that their post-runners carry letters to Lima, a distance of upwards of 100 leagues, without any other food than these leaves. These writers had all resided in the country some years, Stevenson for twenty, and from his official position as secretary to the Governor of Quito, and other appointments, had the best opportunities of obtaining information. Several other writers and travellers in the country attribute the same effects to it. The account of Dr. Weddell is particularly valuable; he mentions its power of sustaining the strength without other food, questions the accounts given by some writers of its injurious effects, states as the result of daily observation that it did not impair the appetites of the Indians who accompanied him in his travels chewing it incessantly; but in the evening, if provided with food, they would eat ravenously. Its action on himself he describes as confined to producing a slight excitement, and of a character quite different from that produced by all other stimulants, especially alcohol, which is temporary though powerful, while the effects of coca is gentle and sustained—characters which depend much on the form in which it is taken, an infusion of the leaves acting very differently from chewing them. He considers that in moderate doses it has no action on the brain, as tea and coffee have, but its effect is diffused over the nervous system, and affords a support without possessing any true nutritive properties, but quite different from all ordinary stimulants, not injurious, not transient, nor followed by the reaction which attends all other known forms, imparting a "diffused stimulus," &c.

The effect of its habitual use upon the constitution is a subject that has been much controverted, and on which the accounts are somewhat conflicting. Nevertheless, they mainly agree in this—that it is constantly taken by many, not to support the strength, but as a stimulant or narcotic, and that the habit soon becomes inveterate and incurable; that a confirmed coquero,† as an habitual chewer is termed, is invariably known by his haggard look, gloomy and solitary habit, listless inability and disinclination for any active employment; that its use is regarded by Europeans as vulgar, befitting only the Indians; nevertheless, that many whites are addicted to it, that numerous women of all classes are so, and that societies exist amongst Europeans, of which even some English are members (Tschudi, Poeppig), who meet to chew the leaf in gloomy silence, using sugar with it instead of lime or ashes. Dr. Weddell, who inquired very carefully into its effects on the constitution, states as the result of his observation the opinion that its habitual use acts on Europeans more prejudicially than on the Indians accustomed to it from early years; and in some cases attributed to its abuse a peculiar aberration of intellect, characterised by hallucinations. Dr. Mantegazza fully confirms the statements of Tschudi and Poeppig, and carefully describes its effects, stating the result of intemperance to be frequently confirmed idiocy. He examined its action upon himself, using an infusion in doses of different strength.

(To be continued.)

* The writer has found that, with a good sample of leaves, the first-named effect is very marked, but not the second more than would be the case in chewing any indifferent substance.

† Coquero, literally a driver; so termed as those of this class universally chew the leaf.

ON THE DETECTION OF STONE IN THE BLADDER.

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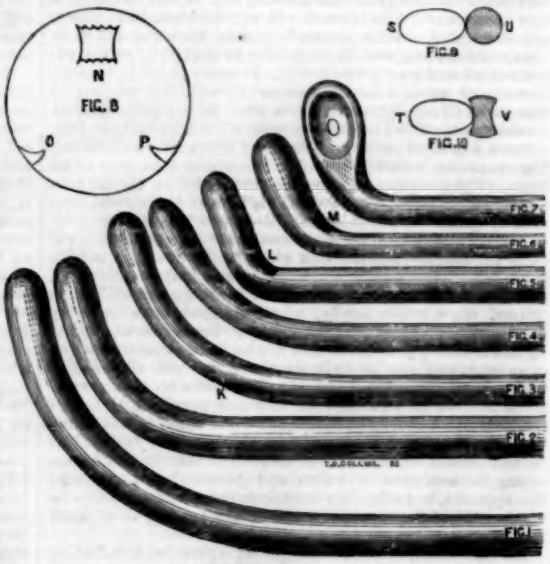
THE detection of stone in the bladder is a subject of lasting interest and importance, and as from time to time errors have occurred in connexion with it, I propose to inquire into the causes that gave rise to them. The matter may be divided into two heads. (1) The surgeon failing to find a stone when there is one. (2) The surgeon operating for stone when there is none. The former mistake has happened more frequently than the latter. There is probably no surgeon of much experience who could say that he had never missed a stone; and in Mr. Coulson's classical work "On Diseases of the Bladder" there are numerous instances

recorded of the non-detection of a calculus. When we consider that on several occasions stones as large as mandarins escaped the search of Civiale, the greatest lithotritist, probably, that the world has ever seen, and were grasped by Mercier's hands, we can hardly wonder at the mistakes which have occurred. I know that I have failed to detect a calculus, whilst, on the other hand, I have discovered stones which had slipped through the hands of other surgeons. It may, indeed, be said that not only will one surgeon on a given day find a calculus which had not been discovered by another, but that he will in a given case find the stone one day and fail to discover it the next. The fact that calculi from time to time escape detection is due to two causes. (1) The employment of imperfect instruments for sounding. (2) The stone being encysted or covered by a prostatic valve or lobe. Various instruments have been devised for finding a calculus, but for the present the surgeon relies on the sound. Not so many years ago the sounds employed in this country were ill-adapted for the intended purpose, but recently more appropriately-shaped ones have been used. It can readily be imagined that small stones are sometimes very difficult to detect, but it is not so easy to account for the non-detection of large stones, and that, too, by surgeons of great experience. What is the reason that a stone escapes discovery sometimes, even when sought for by a skilful hand? It is simply *because only a part of the bladder was examined*, so that it may be said that the stone is missed simply because the place where it is lying is not searched. If a stone be present and be not encysted or covered by a prostatic valve or lobe, it will be discovered if properly looked for; but this implies an examination of every part of the bladder, or, in other words, the employment of an instrument which can search every nook and cranny, and as the sounds in use cannot, as a rule, accomplish that, a stone often escapes detection. When a patient suffers from calculus the bladder is usually irritable, and holds but little urine, and if the surgeon try to remedy the defect by an injection he will in all probability be disappointed at seeing the water escape either before or during examination. Hence, therefore, the cavity in which the search is to take place is of very limited dimensions, and will not permit the movement of a large beaked sound in it. It may be laid down that the shorter the beak of the instrument the greater the range and freedom of movement that will be permitted to it. The burly captain of a small yacht may be scarcely able to move about in the contracted cabin, whilst his little son will run about with ease. Let me apply this to the case of sounding. A large-beaked sound may, through its great size, fail to detect a stone which could at once be discovered by a small beaked one.

Not many years ago the sound,* Fig. 1, was in use, and may possibly be still employed by a few. Such an instrument would, in the long run, miss as many or more stones than it could find, for it could only be capable of very limited movement, as it could not be rotated, and its progress would be arrested by the folds or fasciculi of the bladder. More recently the sound, Fig. 2, has been used considerably, and is a great improvement on the former, as its beak is so much shorter, and allows the sound to range over an extent of ground denied to the other. So far as I know, it is one largely employed by the profession. Fig. 3 represents a well-known sound; it is hollow, and is superior to the two already mentioned, but its eye (K) is in the wrong place, for it is in the convexity of the instrument, where there is the greatest friction. Situated as it is it is calculated to annoy the patient, or to become plugged with mucus. The eye of every sound ought to be made in the concavity (see L and M in Figs. 5 and 6), as it is then sheltered, does not worry the patient, and is not likely to become blocked up with blood or mucus. At all events the instrument is superior to its predecessors. The sound figured 4 is a still better one, as its beak is shorter; it is one that I formerly much used, and can speak well of.

I now come to Mercier's "coudée" sound (see Fig. 5). It has an individuality about it that is not possessed by any other sound, and it stands apart from all other sounds, from which it differs as much as one instrument can possibly differ from another. The beak is only five-eighths of an inch long, and is fixed to the shaft at an angle of 110°. It may be laid down that the nearer the angle formed by the beak and shaft approaches a right angle, the more fitted the sound will be to carry out the indications required. The worst sound is one which is nearly straight, and the best one is that which has a right angle; but inasmuch as a sound with a right angle could not be introduced into the bladder, Mercier has fixed the beak of his sound to the shaft at an angle which nearly approaches it. He has at the same time greatly shortened the beak, so that of all sounds extant this one permits the greatest amount of movement in the bladder. The relative merits of sounds can easily be ascertained by employing them on the same patient. For instance, if Mercier's sound be used after another one, the patient will say that it annoys him less, and the surgeon will find that he will be able to reverse its beak, and to rotate it in all directions without hurting the patient, for the movements of the short beak will not be arrested by the fasciculi of the bladder; the escape of a drop of blood will be an event of very rare occurrence. If, on the other hand, a sound with a long beak be employed it will hurt the patient, bring blood perhaps, and its movements be arrested by the fasciculi. It is of the greatest moment to be able to rotate the sound freely in all directions, especially in the region of the neck of the bladder, and experience will teach that the short-beaked sound of Mercier is the only one by which a proper examination of the neck of the bladder can be carried out. All sounds ought to have the tips of their beaks well rounded and made very blunt, so that if the third lobe of the prostate be enlarged they will not press into it when passing into the bladder. If a sound be tapered or olive-tipped, it will hurt the patient and bring blood. To those not accustomed to use a "coudée" sound, it may seem difficult to pass, but it is not so, and the surgeon will rarely fail to introduce it; whilst, on the other hand, he will succeed in passing it when unable to get in other sounds.* It requires to be introduced much in the same way as a lithotrite, taking care that the act of depressing the handle be delayed in order to allow the sound to proceed as far as it can whilst in the vertical position. It may be laid down that all sounds ought to be made with slender shafts, for the movements of a sound with a thick shaft in the urethra are very irritating to the part, and annoying to the



* The sounds represented in the woodcut are drawn of their actual size. They appear large, however, because only the beaks and parts of the shafts are delineated.

* Occasionally, but very rarely, a case will occur where no sound of any shape can be passed. I will, in another communication, give the solution of the paradox, "How to introduce a sound where none can be passed."

patient. The evil may be reduced to a minimum by having the shaft made not larger than a No. 6, English size.

The advantages of Mercier's sound over all others may be thus summed up. 1. It avoids false passages, as it presents to them, not its point, as other sounds do, but the heel of its beak. 2. It can be introduced when the surgeon has failed with other sounds. In certain cases of enlargement of the third lobe of the prostate ordinary sounds cannot be passed, whilst Mercier's sound will rarely fail. 3. It annoys the patient less, as it does not rub sharply against the fasciculi. 4. It can be made to examine a larger surface of the bladder than any other sound, as its short beak permits it a greater freedom of movement. 5. It is the only instrument which can diagnose accurately the existence of tumours of the bladder, prostatic valves, &c.

Recently M. Mercier has made a modification of his sound to be employed in cases where the presence of a small stone is suspected, but not detected. If a section be made of the beak of any sound, it will be found to be convex (see Fig. 9, U), so that it strikes a stone (S) with its convex side; and, as the surface of all stones is usually convex, it follows that the two bodies are brought into contact at points only (see Fig. 9), and as a result, not only is the sound so faint that it may be lost by transmission, but the convex beak of the sound tends to slip on one side or other of the stone, or to push it away. Now Mercier has flattened the beak of his sound, and then excavated each side, so as to make a considerable hollow, into which the eye opens (see Fig. 7).* In this way a larger surface of the sound and stone is brought into contact, so that instead of the two bodies being only brought into apposition at a point (as seen at Fig. 9), they touch at several points (see Fig. 10), and it follows that the sound produced by the collision is proportionately increased in intensity. Thus, therefore, the small stone which was perhaps silent when struck with a convex beak will give forth a decided sound when hit with a sound whose beak presented a concave surface to it.

One of the causes of the non-detection of small calculi is, I think, to be found in the fact that, as a rule, they lie close to the neck of the bladder; so that when the sound is introduced it passes by the stone and makes for the fundus, and as the surgeon felt nothing on entering the bladder, he concluded there was nothing at that spot. I have usually found small calculi at the left side of the neck of the bladder. Mr. Coulson has a "lex non scripta" to the effect—"Behind an enlarged prostate suspect a stone." The experience of every surgeon would, I think, go to prove that most adults who have suffered from stone have also had enlarged prostates. When a small stone is lying quietly behind an enlarged gland it can be readily imagined how easy it is to miss it, especially with the sounds usually employed in this country, and hence it is always well to raise the patient's buttocks on a good stiff bolster, so as to make the fundus the lowest portion and force a stone to roll into it from the neck. The introduction of the left forefinger into the rectum to tilt up the bladder, the depression of the hypogastric region with the left hand, and the withdrawal of the urine through the sound, are valuable and indispensable aids when searching for stone.

I now come to the second portion of my subject—operating for stone when none exists. This accident has occurred more frequently than may perhaps be suspected, and has arisen this way:† No physician can diagnose whether a given sound heard in the heart be abnormal or normal, unless he know what are the sounds that can be heard in the normal state. Neither can a surgeon interpret what he may hear in the bladder unless he be acquainted with the sounds that can be evoked from a healthy organ. Now I have found, by examining dead bodies, that usually three bony points can be made to give forth sounds—i.e., the sacrum (see Fig. 8, X), the spine of the left ischium (P), and the spine of the right ischium (O). These bony points can usually be struck, but not always, and they emit dull sounds which may be mistaken as proceeding from calculi. I imagine they have misled surgeons in this manner. When the surgeon has passed a sound into the bladder, struck something, and heard a something, he concluded that as the sound was given forth in the bladder it must have proceeded from a foreign body in that viscus. The fact was, that the thing struck was *outside the bladder and not in it*. The sound did not originate in the bladder, but was transmitted through its walls. Then again the shaking of the links in the surgeon's cuff may deceive. I have, on more occasions than one, when sounding for stone, heard a bystander say, "There is a stone, I hear it." I have then taken out my links and asked him if he still heard the sound, and he has replied, "No." Even the click produced by shaking a well-oiled sound in the urethra may mislead. The hypertrophied fasciculi of the bladder may be covered with a phosphatic deposit, and transmit a sensation of there being a something in the bladder; or the third lobe of the prostate may be enlarged, pedunculated, covered with earthy matter, and when struck give forth a sound. Lastly, a fungus, a tumour, blood-clot, or hydatids must be added to the list of things capable of leading a surgeon astray.

Now one means of clearing up any doubt as to what a certain sound may proceed from is to make the patient change his position. Bony points will still maintain their relative situations, but a stone usually rolls about. But if a surgeon use a lithotrite before operating—and no surgeon ought to operate without first of all examining the bladder of an adult with that instrument—mistakes will be rendered almost impossible. A lithotrite will not clutch the sacrum, or any other bony point, but it will burst blood-clots and hydatids, and enable the surgeon to say whether a given body in its jaws be a stone or only a pedunculated tumour.

* The beak has been represented rather too large, and set at an angle too near 90°. As the beak is flat and thin, it does not exceed the beaks of other sounds in circumference.

† The great Cheselden cut three patients without finding any stone, and Mr. Gutteridge, who is probably the most successful lithotomist in this country, states that he has on three occasions done likewise.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF STONE IN THE BLADDER.

(Under the care of Mr. BERKELEY HILL.)

FOR the following notes we are indebted to Mr. A. P. Gould, surgical registrar.

Stone in the prostatic urethra left for eighteen months after attempts at lithotrity; median lithotomy; recovery.—A patient, aged sixty, was admitted into the hospital on March 12th, 1875, with a history of symptoms of stone in the bladder for fifteen years. Eighteen months before his admission he had been a patient in a cottage hospital, where the stone was discovered, and a lithotrite introduced with the intention of crushing it. During this operation the stone was seized and broken, but the instrument could not be withdrawn for some hours afterwards. Some pieces of stone were brought away at the time, but no more attempts were made to remove the remainder. After some weeks the patient left the cottage hospital, continuing to suffer from great pain and dribbling of urine. The urine had always been very thick, and for two months before admission to University College Hospital a little blood had been mixed with the urine. To allay the pain he had become a confirmed opium-eater, and swallowed from twenty to thirty grains daily. His weakness was extreme; appetite almost gone; he was emaciated, highly nervous and irritable, and despondent of the possibility of any relief to his sufferings. The urine was highly ammoniacal and fetid, and contained nearly one-half albumen. A catheter passed along the urethra met no difficulty until the neck was reached, when it travelled over a stony mass, apparently of some length. The bladder was empty.

On the 17th March, 1875, the patient was cut by a median incision, and calculous deposit removed partly from the urethra, but also partly from the bladder itself. This deposit consisted chiefly of large angular fragments of a uric acid stone and partly of new phosphatic concretions; the whole weighed 200 grains. The bladder was excessively

contracted, but there was no difficulty in the extraction, and very little hæmorrhage from the wound. The patient made a very slow recovery, the wound in the perineum being not quite closed when he left the hospital on the 23rd April, though urine had for some time been entirely voided through the urethra. The cystitis had ceased, the urine was clear, slightly acid, and free from albumen. He could hold his water about two hours.

During 1875, and in February, 1876, the patient presented himself at the hospital on several occasions. At his last visit he was stout and felt well, and went regularly to work. But he was frequently troubled with irritation of the bladder, when he could not retain his urine at all, and was compelled to wear a urinal. The urine at these times was thick and somewhat ropy. He had been repeatedly sounded; the bladder was of very small capacity, but no stone was detected. The prostate appeared normal. Zinc and quinine injections into the bladder quickly improved the condition of the urine, but were not found to prevent its relapse after a shorter or longer interval.

Two uric acid stones, weighing together an ounce and a half, taken from a boy of fourteen by lateral lithotomy.—E. B——, a well-nourished, healthy lad, aged fourteen, was admitted into the hospital on April 26th, 1875. Seven years before he had difficulty in passing water. The family doctor was consulted, and he stated that there was "something the matter with the kidney, but that as the patient grew up he would get all right." He earned his living as a farm labourer. The difficulty of passing water remained thenceforth, and became greater and more severe during the eighteen months preceding admission. Three weeks before his admission the boy was sounded for the first time by a surgeon, who discovered a stone, and sent the boy to London for treatment. The patient declared that the pain, which was very severe, was always felt immediately after making water, and *was worse by night than by day*. Occasionally blood followed the flow of urine, and there was also sudden stoppage to the flow sometimes. There was a heavy feeling in the pubic region, and an aching in the left loin. Urine clear; specific gravity 1005; very slightly acid; no albumen.

The operation was the left lateral one. A large stone was found, and, owing to its size, was crushed before removal. A second smaller stone was removed afterwards entire. The stones together weighed an ounce and a half troy, or 720 grains; the smaller one only 145 grains; so that the large stone was nearly an ounce and a quarter in weight. The boy went on well after the operation, and, as he expressed it, "never had any more pain since he took the chloroform." The healing of the wound was delayed by two small fragments of calculus, which were passed on different occasions from the bladder. He was discharged in good health, passing his water wholly through the urethra five weeks after the operation.

Several facts of interest are contained in these cases. In the second case the fact that a child can carry a stone for many years, probably the whole seven that succeeded the first consultation of the doctor, in the bladder, allowing it to grow to over one ounce in weight, and meanwhile himself become strong and vigorous. Another point was the greater severity of the pain by night, a characteristic of enlarged prostate rather than of stone.

In the first case, of the patient who had been discharged uncured from the cottage hospital, the history of his treatment there was probably exaggerated by the patient. The permanent contraction of the bladder, with frequently recurring chronic cystitis, suggested the possibility of a fragment of stone being still lodged in some part of the bladder, or the presence of a sacculus or cyst in the wall of the viscus.

KING'S COLLEGE HOSPITAL.

ECZEMA HYPERTROPHICUM OF LEG; AMPUTATION; DEATH.

(Under the care of Mr. HENRY SMITH.)

FOR the following notes we are indebted to Mr. Nicholson, surgical registrar, and for the drawing from which the woodcut has been made to Mr. Tirard, dresser.

T. B——, a builder, aged sixty-seven, residing at Horncastle, Lincolnshire, was admitted into the hospital October 25th, 1875. The family history was unimportant, and none of his relations had suffered from any affection of the kind. There was no history of syphilis. The patient's occupation required much standing and exposure to cold, and he had suffered from enlarged veins of the affected leg for fifty years, and had always been slightly lame on that leg. Fifteen years before he had noticed that the left leg was larger than the other, and about that time he had an abscess in the anterior part of the middle third of that leg.

When admitted in October his foot and lower third of left leg were enormously enlarged, being in size and appearance the same as appears in the accompanying drawing. There were also two large sores behind each of the malleoli, three to four inches in diameter. The veins above the affected tissues were enlarged and varicose.

On November 10th, Mr. Smith ordered the affected part to be plastered over with chalk made into a paste with liquor calcis. This treatment was pursued with the effect of considerably diminishing the induration, until the early part of January, when an abscess was formed in the sole of the foot, which was opened, and a quantity of fetid pus evacuated. This treatment was then discontinued. On examination the three middle metatarsal bones were found to be necrosed, and to have been the cause of the abscess in the sole of the foot.

The general health of the patient, which had been good up to the time of the abscess in the foot, was now not so good, owing to pain and restless nights, and this, together with the necrosis of the metatarsal bones, decided Mr. Smith to amputate. This was done on January 8th, by the single flap operation, two inches below the knee. The tissues at the bottom of the flap were almost cartilaginous in nature, creaking under the knife. Esmarch's elastic bandage was used, and only a small quantity of blood lost. The patient, however, never seemed to recover from the shock of the operation, sickness and hiccough continuing until Jan. 14th, when he died.

Remarks.—This case presented a good example of what might be called elephantiasis, but which in reality is a severe form of eczema, described by Mr. Erasmus Wilson as eczema hypertrophicum. It was associated in this case with great enlargement and varicosity of the veins of the leg. Mr. Smith recommended amputation as soon as the man came into the hospital, but as he would not submit to this, Mr. Smith tried the plan of treatment suggested by Mr. Erasmus Wilson. This was at first attended with great benefit, but the subsequent formation of deep-seated abscess produced so much constitutional disturbance that amputation became absolutely necessary, but unfortunately this proceeding was too late.

MEDICAL DEFENCE ASSOCIATION.—The East London Branch of this Association has just recovered a penalty of £20, under the Apothecaries Act, from a chemist named Bellairs, who carries on business in Stepney. This is the second penalty which the same defendant has paid into court within the last few months.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THIS Society met on the 25th inst., Sir James Paget, President, occupying the chair. A long and exhaustive paper by Mr. Henry Morris upon "Intermitting Hydronephrosis" was read, and in the discussion which followed Dr. Hare related three remarkable instances of this affection which had come under his notice.

The following is an abstract of Mr. MORRIS's paper entitled "A Case of Intermitting Hydronephrosis, with some remarks on Hydronephrosis as a Cause of Abdominal Tumours":—Since its introduction by Rayer in 1841, the name hydronephrosis has been used to signify distension of the pelvis of the kidney, or pelvis and ureter, by retained urine. The term "intermitting hydronephrosis" is here employed to express in a clinical sense an intermitting abdominal tumour due to the occasional accumulation (and subsequent escape) of urine in the pelvis of the kidney, or in the ureter and pelvis of the kidney. It is not intended to refer to the pathological condition, as seen in the post-mortem room only. A case is then described of a woman aged sixty-six, who for several years had suffered from a villous cancer of the bladder, and who towards the end of her illness had an intermitting tumour, sometimes the size of the head of a small fœtus, in the right hypochondriac and lumbar regions. This tumour, which was sometimes very evident, was at other times quite undiscoverable. Its presence was associated with pain, vomiting, and constipation, and it arose from the distension of the pelvis of an hypertrophied kidney from obstruction at the vesical end of the ureter. The case was, briefly, one of double hydronephrosis, with an evident abdominal tumour on one side, caused by the presence of villous disease of the bladder. It is believed to be the only instance in which the one condition was the result of the other, for although another case has been recorded by Rayer in which the two pathological states co-existed, yet in that case the hydronephrosis was caused by a calculus at the lower end of one ureter. Some explanation is then given of the occurrence of an abdominal tumour in some cases of hydronephrosis and not in others; and it is suggested that in those cases, on the one hand, where a tumour is formed, it will always be found that the obstruction has been both sudden and complete to the flow of urine from a kidney in its full functions; or else that after one kidney has been damaged by disease and the other has undergone compensatory hypertrophy, some obstacle has arisen to the flow of urine from the hypertrophied organ. Instances of the first kind arise from the impaction of a calculus in the ureter; the case reported by the author is one of the second kind. On the other hand, where the obstruction is slight at first, and only gradually increases, there is a continual resistance rather than an actual impediment to the flow of urine, so that the secreting structure becomes destroyed *pari passu* with the distension of the pelvis of the kidney, and death occurs before the dilatation is sufficient to cause a tumour. In stricture of the urethra, and in most cases of uterine disease (the most frequent causes of hydronephrosis), this resistance is opposed to both kidneys, and they each suffer, but cannot share, the results of the obstruction. Thus, although, as Howship said, there is less chance of detecting hydronephrosis in cancer of the uterus during life, if the disease be confined to one side, the converse is true only when the obstruction has been confined to one side for a time and afterwards affects the other. Facts show that it is not true when both kidneys have been acted on similarly and for the same length of time. With regard to the treatment of hydronephrotic tumours, the importance of relieving pressure from retained fæces by the use of purgatives and enemata is just referred to, the successful practice in two or three cases of manipulation is pointed out, and then the question as to the best site for puncturing, when an operation is required, is considered. The conclusion arrived at is that when the tumour is of the left kidney the anterior extremity of the last intercostal space of that side is as good a spot as can be chosen; but that when the tumour is of the right kidney there is the almost certain danger of wounding the liver if the corresponding position is selected, and that the best place for puncturing on this side is half way between the last rib and the crest of the ilium, from two inches to two inches and a half behind the anterior superior spine of the ilium. This spot is on a level with the front surface of the bodies of the lumbar vertebræ, and it may with safety be conjectured that when a tumour requiring to be tapped is present, a trocar inserted here and directed inwards and somewhat forwards will pass behind the peritoneum and colon, in front of the kidney, and below the liver, and will penetrate the cyst at its anterior and lower part. The rarity of intermitting hydronephrosis is then shown by a reference to an appendix of all the published cases found by the author in which hydronephrosis had caused an abdominal tumour. Frequent as hydronephrosis as a pathological condition is, there are comparatively few cases in which a tumour has been detected during life, and still rarer is it for such a tumour to intermit or disappear altogether. Six cases are referred to briefly in which complete subsidence occurred, and seven others are described in abstract, in which the tumour intermitted. Cases of unquestionable pyonephrosis are excluded from the appendix. In conclusion, it is suggested that in all probability the greater number of the tumours, which having been called ovarian upon good authority, have nevertheless spontaneously vanished, have been hydronephrotic in nature, and disappeared by a normal process through a normal outlet of the body.—Mr. SPENCER WELLS thought it almost unnecessary to distinguish between cases of hydronephrosis and pyonephrosis; for the former, if of long standing, would probably pass into the latter, and the effects produced by each form of tumour upon surrounding parts were necessarily similar. Referring to two cases mentioned by the author in which the tumour was punctured through the anterior wall, Mr. Wells said that in both cases—that under his own care and that under Dr. Cooper Rose—the puncture was made at the most prominent part of the tumour, and where it was uncovered by intestine. In his own case, the opening thus made was kept open, until after some time, when two calculi were voided, and it then spontaneously closed. As to the suggestion that spontaneously disappearing cystic tumours frequently described as ovarian were really hydronephrotic, he remarked that cases undoubtedly did occur in which there was clear evidence of an ovarian or extra-ovarian cyst, which, rupturing, set up peritonitis of more or less marked extent.—Mr. T. SMITH also demurred to any distinction being drawn between cases of hydronephrosis and pyonephrosis. He had seen three or four cases of intermitting pyonephrosis in which, at variable intervals, a tumour formed in the flank, then subsided, its disappearance being coincident with an outflow of pus in the urine. He thought that the spot chosen by Mr. Morris as the best for puncturing these tumours—viz., in the last intercostal space—would lead to penetration of the diaphragm; and he remarked upon the clinical interest of the question of tapping and drainage. In one case in which a drainage-tube was kept in, a fatal termination followed an attempt to dilate the wound by a sponge-tent. In another case, he drew off about a quart of pus and then closed the wound. There had been no recurrence of the tumour, and it would appear that the effect of emptying the cyst was to allow the rest of the fluid to flow into the bladder.—Dr. HARE had had three cases of intermitting hydronephrosis under his care. The first of these, remarkable for being an instance of bilateral hydronephrosis, was referred to by Mr. Morris in his paper. The patient was a middle-aged woman, who came to him first with a tumour on the right side of the abdomen. Some months later this tumour diminished in size, and another, evidently, like the first, of renal origin, appeared on the left side of the abdomen. On the death of the patient, some years afterwards, the right kidney was found to be converted into a large sac distended with urine, while the left was flaccid and empty, so as to be at first mistaken for a coil of intestine. The obstruction was caused by an S-shaped twist in each ureter, and in process of removal the right kidney collapsed, and its contained urine rushed out in a full stream. The second case was that of a young

woman who had been under his observation for twenty-five years; she suffered from an intermitting tumour on the right side of the abdomen, with much pain. His third case was seen with Dr. Wadham. It was that of a young lady twenty-two years of age, who had suffered from pain in the left side of the abdomen for two or three years; a tumour had appeared there at intervals for a year and a half, the intervals of its appearance decreasing from every two or three months to every two or three weeks. When Dr. Hare saw her the tumour, which was obviously of renal origin, had been present for three weeks, and extended to the umbilicus. The passage of a large quantity of urine was followed by the disappearance of the tumour, and Dr. Hare suggested the application of a spring pressor over the region of the swelling. He saw the patient again about a year later, and there had been no return of the tumour.—Mr. MORRIS, in reply, said that the reasons which determined him to attempt to draw a distinction between hydronephrosis and pyonephrosis were chiefly because the latter was far more common, and although the causes leading to it were similar to those giving rise to hydronephrosis, there were yet other causes—e.g., diphtheritic inflammation of the pelvis of the kidney—which solely produced the pyonephrotic form. Then some cases of hydronephrosis existed for years, and never became purulent. He did not mean to imply that there was any difference between the form of tumour in the two cases. The seat of puncture, which he had ascertained by examination post mortem to be that at which the operation could be done with safety, was suitable for the majority of cases, whereas a puncture through the anterior abdominal wall would be attended with great risk. There would be no fear of injury to the diaphragm by inserting the trocar between the points of the eleventh and the twelfth ribs, as the instrument would pass to the inner side of the lowest attachment of that muscle. He did not mean to assert that ovarian tumours never disappeared spontaneously, but only that some so-called ovarian tumours which had spontaneously vanished were really hydronephrotic. Of twelve cases of hydronephrosis in women, seven had been diagnosed as being ovarian, and three of them had been subjected to the grave operation of abdominal section, showing, at any rate, that his suggestion was not without warrant. He had thought in Dr. Hare's first case that the ureter was twisted on its own axis in a spiral manner, and should have imagined that an S-shaped bending of the tube would be rather the result of the over-distension of the tube than the cause of obstruction. Dr. Hare's application of pressure was of great value.

At the conclusion of the meeting Mr. DAVIES-COLLEY showed a patient, a boy about twelve years of age, in whom he had practised partial excision of the tarsus for equino-varus. The portions of bone removed included the whole of the cuboid, and portions of the os calcis, scaphoid, a small portion of the astragalus, cuneiform, and adjacent parts of the three metatarsal bones. The deformity was fully relieved, and the foot was a useful one.

Mr. DONALD NAPIER also showed a new Apparatus devised by himself for producing Local Anæsthesia. The following is a brief account of this ingenious contrivance. It consisted in a silver tube, furnished with a pad at one extremity and with an egg-shaped reservoir near the other extremity. The reservoir was shut off from the tube, but was connected with the pad by means of a smaller second tube contained within the first. When in use the reservoir is filled with ether, and the warmth of the hand suffices to allow of its evaporation, so that the pad is kept perfectly moist with the fluid. A continuous current of air is then blown through the main tube by means of a foot-bellows, resembling that worked by the hand in the ordinary "spray-producer." Mr. Napier pointed out the advantage possessed by this apparatus in its capability of being applied to small surfaces. The bellows could also be worked with great advantage with the "spray-producer."

MEDICAL SOCIETY OF LONDON.

ON Monday, the 10th inst.,—Mr. W. Adams, President, in the chair,—the proceedings were opened by Mr. MASON exhibiting a man, aged sixty-two, on whom he had operated three times for a Myeloid Tumour of the Septum Nasi with a good result. The first operation, in Sept. 1874, consisted in removing the growth through the anterior nares with the ordinary polypus forceps; but the nostril having soon become again obstructed, the second operation was performed six days afterwards, Mr. Mason extirpating the growth by making an incision down the side of the nostril and raising the ala. Three months after, the tumour being larger than ever, a third operation was performed, in which, besides following the old line of incision at the side of the nose, Mr. Mason divided the upper lip in the median line, removing the growth very freely from the septum of the nose and also from the inner surface of the lip. Since then the patient has remained perfectly well. Mr. Mason then referred to a case (with photographs of the patient) of melanotic tumour on the right cheek, occurring in a man aged sixty-four, which was removed in Oct. 1872, the patient making a rapid recovery, and remaining since in good health, as shown by a letter written to Mr. Mason in March, 1876. Mr. Mason said he brought these cases before the Society with the view of indicating the propriety, or rather the expediency, of operating on tumours which to the naked eye and under the microscope seemed to be beyond surgical aid.—Mr. Mason's cases gave rise to a short discussion, in which Mr. Thornton, Mr. Spencer Watson, Dr. Routh, and the President took part, the general opinion being in favour of Mr. Mason's plan of treatment, the utility of which was demonstrated both in the human being and in animals.

Mr. J. KNOWSLEY THORNTON then read some remarks on two cases of Pelvic Hæmatocele successfully treated by drainage. After a few words of introduction, he said that in both the cases the tumour in the abdomen caused by the effusion of blood was very large, and that both the patients were very ill and in danger before any surgical measures were adopted. The one was treated by successive punctures from the vagina in Douglas's space, an opening being eventually kept patent to allow drainage; the other by an incision in the same place, making a free opening at once. Each case was about five weeks under treatment, and each had relapses, due to the imperfect escape of the discharges; both ultimately recovered, and continue well, very little trace of the effusion remaining in either. In subsequently making some remarks on the special points of interest in these cases, Mr. Thornton advocated free incision and drainage by the vagina, in all cases where surgical treatment becomes necessary, as preferable to puncture, and remarked that he would not use injections unless he felt sure the collection had become thoroughly congested and putrid. He would not advocate a too hasty use of surgical means, but thought there were cases in which, the effusion being very large, it would be better to incise and drain, even though no serious symptoms were present, as the treatment was thus rendered much shorter, and there were many risks in waiting. He mentioned a case now under his care illustrating the possibility of spontaneous rupture with persistent fistula and months of misery. He quoted from the works of Sir J. Simpson and Mr. Spencer Wells in support of the advisability of free opening and drainage in many cases, and advocated the use of the hollow tangle tent. Referring to the published papers of Dr. Meadows on this disease, he protested strongly against puncture per rectum as dangerous from the risk of admitting fæcal gases and liquids into the blood or even into the peritoneum itself, and also objectionable because, if a fistula became established into the bowel, it was one out of the reach of the surgeon for further treatment. He also referred to the opinion of Dr. Meadows that the blood was fetid before puncture, and pointed out possible sources of fallacy from Dr. Meadows's published cases. In both the cases related to the Society the blood was in the first instance odourless. In conclusion, he acknowledged imperfections in the treatment of his cases due to the variety of views, a deficiency of good guides in published cases, and trusted the careful record of two cases successfully treated would be useful.—Dr. Rogers, Dr. Routh, and Dr. Godson made a few remarks. All the speakers, whilst acknowledging the care and skill displayed by Mr. Thornton in the cases under observation, differed from him as to the mode of treatment, and were of opinion that puncture by the rectum, when any is required, is preferable. Mr. Mason also said a few words concerning the little use of the aspirator in these cases, the fine tube getting clogged at once.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting of this Society on the 5th inst.—a report of the first portion of which appeared in our last issue—Dr. JOHN WILLIAMS read a paper "On the Mechanical Action of Pessaries," in which he discountenanced the employment of Hodge's pessaries in cases of retroflexion of the uterus, advocating a form similar to that recommended by Schultze —viz., a ring bent into the form of a figure of 8, one end being much smaller than the other.—Dr. BRAXTON HICKS thought that Hodge's pessary was the most practical one existing. Even where the uterus was very tender and sensitive to the touch, a Hodge might still be employed, the fundus getting out of the way, and allowing the intestines to fall down behind in cases of retroflexion, so that the instrument was tolerated. A Hodge was easily applied, rectified, and altered. That suggested by Dr. Williams was less easy of application, the difficulty being in getting the cervix into the opening in the ring.—Dr. GRAILY HEWITT entirely concurred in what Dr. Williams stated as to the importance of the dragging action of the pessary on the cervix uteri in regard to its efficiency in helping to restore the uterus to its proper shape. The cervix was thereby made in some degree a fixed point, and thus an exceedingly necessary object was secured. In his own practice he had obtained very great benefit from attention to this mechanical axiom. In severe and long-standing cases of retroflexion the posterior portion of the pessary must be made long enough to actually touch and carry the fundus upwards to a sufficient extent. The repeated use of the sound was in such cases necessary. In cases of anteflexion he wished to state that for some time past he had been accustomed to place the cradle pessary, not with the small ring backwards, as represented in the third edition of his work on Diseases of Women, but with the large ring backwards.—Dr. PLAYFAIR considered pessaries of great value; in fact, no one could treat cases of flexion satisfactorily without them, but unless careful attention were directed to the concomitant conditions, congestion, inflammation, hyperplasia, &c., we should not succeed. It was easy to run into extremes by neglecting or making light of conditions, and relying simply on exclusive attention to mechanical assistance. He regarded Hodge's pessary as a most admirable instrument.—Dr. BANTOCK agreed with Dr. Williams that a Hodge was of very little use in retroflexion. It acted by dragging back the cervix uteri and so doubling up the uterus. A Hodge was only of use in retroversion. An intra-uterine stem must first be passed to relieve the flexion.—Dr. AVELING considered the treatment of flexions and versions should be different. A Hodge was valuable in retroversion, but not in retroflexion until an intra-uterine stem had been inserted. He did not believe that the pessary doubled up the uterus, the fundus not being fixed. In old cases of confirmed rigid flexion a Hodge was of no use.—Dr. HAYES differed from Dr. Williams in regard to the value of Hodge's pessary in the treatment of retroflexion and as to its mode of action. He thought the instrument most useful. If the normal position could not be maintained, it frequently relieved the headache, sense of bearing down, and dragging pain in left ovarian region. He regarded the action of the pessary as that of a shifting lever. Where the posterior cul de sac of the vagina was short little benefit was derived from a Hodge, as the upper end was prevented from pressing against the fundus.—Dr. ROPER remarked that in cases of retroversion the cervix and body of the uterus constituted one continuous rigid organ; there was no attenuation of tissue between the fundus and cervix, as in cases of flexion, where a kind of hinge or joint was formed at the angle of flexion, and by drawing the cervix down the lesion was only increased. The posterior limb of the Hodge needed to be long, so as to press up into the posterior fornix of the vagina, and impinge on the body of the uterus above the point of flexion.—Dr. GODSON believed that many cases of retroflexion were the result of congestion supervening on simple retroversion, and that if the congestion be treated by rest, depletion, &c., the flexion may be converted into version, and thus become amenable to mechanical treatment; whereas, if pessaries be employed while the flexion exists, they are not only useless in remedying the displacement, but are mischievous, as increasing the congestion.—Dr. GALABIN believed the old view of the action of Hodge's pessary to be a correct one—the pessary itself forming a lever to which the power was applied through the anterior vaginal wall. His own experience was opposed to the statement that the limb of the pessary never came into close contact with the fundus; an examination per rectum showed it to be otherwise. By increasing the curve of the pessary, he had often found it effectual in restoring the fundus when a slight curve had proved insufficient, not only in retroversion, but also in retroflexion.—Dr. MURRAY remarked that he had used Hodge's pessary with considerable advantage in cases of retroflexion, and cited a case in which he had brought the retroflexed uterus to a state of retroversion, and from the continued wearing of the pessary the uterus had become anteverted. For this condition he had used the cradle pessary with success. He considered it quite necessary to use a pessary where congestion existed owing to displacement.—Dr. GRAILY HEWITT stated that he had often seen a case of retroflexion converted into one of anteflexion after the employment of a Hodge's pessary.—Dr. BARNES observed that if we used a Hodge's pessary with full understanding of its action we should never be disappointed. It was extremely important to replace the uterus before inserting the pessary. If the posterior limb of the Hodge were well shaped we had a double leverage, and the fundus was pressed up by it.—Dr. ROGERS regarded the Hodge's pessary as a useful and valuable instrument. In cases of flexion it was often necessary to employ intra-uterine stems as well.—Dr. HEYWOOD SMITH stated that he was in the habit of bending the upper portion of the Hodge to nearly a right angle, and the lower portion to a similar extent, so as to avoid pressure on the urethra. With regard to obstinate flexions, and more particularly in cases of anteflexion, he considered that no treatment was so efficacious as that by intra-uterine stems, but it was necessary to use such with extreme caution and after proper depletion of the uterus by leeches or puncturation, at the same time keeping the patient in bed.—Dr. WILLIAMS, in reply, said two objections had been raised as to the principle of action of Hodge's pessary; the first, that the pessary pressed against the fundus uteri. This, no doubt, was the case in many instances, but in most of these the uterus was not made to assume its usual position in the pelvis, but remained retroverted or more or less retroflexed. The other objection made—that a Hodge did not maintain the uterus in position where the posterior wall of the vagina was unusually short—was quite true, and the explanation of it evident. It was not because the instrument could not press against the fundus uteri; the anterior vaginal wall was also short, and inserted into the cervix uteri at a lower level than the posterior, and any attempt at dragging the cervix uteri backwards rendered the anterior wall of the vagina tense, thus preventing the object in view.

Reviews and Notices of Books.

The Variation of Animals and Plants under Domestication. By CHARLES DARWIN, M.A., F.R.S. In Two Volumes. Second Edition. London: Murray. 1875.

IN this wonderful work, which is completely filled with the results of observations—many of them original—on plants and animals, Mr. Darwin presents in an orderly manner the facts which enabled him to form his now celebrated theory on the origin of species. Eight years have elapsed since the first edition was published, of which he has taken advantage to introduce many new facts and to omit some statements and correct some errors pointed out in the ordeal of criticism to which the former edition was subjected. The work is one that is interesting to all classes of readers, since it deals not only with the variations of common and well-known animals, as the horse, dog, cat, pig, sheep, goat, rabbit, pigeon, fowl, &c., and well-known vegetables, as the cereals, leguminous plants, and many kinds cultivated for their value or beauty; but it discusses the influence of inheritance or heredity, of crossing, the

advantages and disadvantages of changed conditions of life and of selection in improving or deteriorating the characters of organisms, all of which are important to the practical agriculturist and to the breeder. In addition, he gives the results of his long meditations over the facts he has collected, in a manner that is extremely interesting to the scientific man.

He shows that, with very few exceptions, all animals and plants that have been long domesticated have varied greatly, though he is unable to explain why some, as dogs or fowls, for instance, are much more liable to variation than others, as the cat and goose. It is possible, however, he thinks, that in the case of the dog, ox, and pig, several of our races are descended from distinct wild prototypes. The tendency to variation under domestication affects all parts of the body—the most important, as is seen in the skull of the pig, and the least important, as the colour of the hair or feathers. It is curious to notice, however, that the change is sometimes slow and gradual, and has evidently been due to the fostering hand of man, as in the racehorse, greyhound, and gamecock, whilst in other instances it has been sudden and abrupt, as in the Aucon and Mauchamp breeds of sheep, niata cattle, short-faced tumbler pigeons, &c.

"The best proof," says Mr. Darwin, "of what selection has effected is perhaps afforded by the fact that whatever part or quality in any animal, and more especially in any plant, is most valued by man, that part or quality differs most in the several races. This result is well seen by comparing the amount of difference between the fruits produced by the several varieties of fruit-trees, between the flowers of our flower-garden plants, between the seeds, roots, or leaves of our culinary and agricultural plants, in comparison with the other and non-valued parts of the same varieties. Striking evidence of a different kind is afforded by the fact ascertained by Oswald Heer—namely, that the seeds of a large number of plants—wheat, barley, oats, peas, beans, lentils, poppies—cultivated for their seed by the ancient lake-inhabitants of Switzerland, were all smaller than the seeds of our existing varieties. Rütimeyer has shown that the sheep and cattle which were kept by the earlier lake-inhabitants were likewise smaller than our present breeds. In the middens of Denmark the earliest dog of which the remains have been found was the weakest; this was succeeded during the bronze age by a stronger kind, and this again during the iron age by one still stronger."

By the way, is it certain that there was really an iron age after the bronze? Has not some evidence been obtained to show that among the Greeks at least bronze was used in preference to iron, although the latter was a well-known metal?—and if this be true, is not the above conclusion invalidated?

The most interesting chapter to the physiologist—where all are interesting—is that on Pangenesis, an hypothesis by which Mr. Darwin endeavours to account for the phenomena of reproduction, of the functional independence of the units of the body, of variability, inheritance, and reversion. The theory simply stated is that the several units of which the organs of the male and female body are composed throw off in adult life minute granules, which may be termed gemmules. In the plant, for example, the leaves, the anthers, the carpels, &c., and in the animal the nerves, muscles, bones, glands, and connective tissues, each throw off a large number of gemmules, which, when supplied with appropriate nourishment, multiply by self-division, and are ultimately developed into vessels like those from which they were originally derived. The gemmules, he thinks, have a powerful tendency to collect from all parts of the system to constitute the sexual elements, and their development in the next generation forms a new being; but they are likewise capable of transmission in a dormant state to future generations, and may then be developed. It is easy to see the bearing of this hypothesis on the phenomena of hybridism, reversion, &c.; and in regard to the apparent difficulty of the number of molecules required to build up the whole body, and the, at first sight, impossibility of so large a number being aggregated in bodies so small as the seminal animalcule and the maternal ovum, it may be sufficient to remark that Mr. Sorby, in his recent address as president of the Royal Microscopical Society, has shown that the tolerably concordant calculations of Stoney, Thomson, and Clerk Maxwell, founded on totally different data, give as a mean the astonishing number of 3,972,000,000,000,000 molecules in one one-thousandth of an inch cube of water. Even admitting this, however, there seems to be some difficulty in explaining both the great general uniformity of the body and the occasional monstrosities that are seen. How comes it that such a body as the crystalline lens is never congenitally absent, unless the whole eye be atrophic? and on the other hand, is it credible that all the molecules of a limb are absent when a whole limb is congenitally aborted? if not, why do not the molecules of the vessels, nerves, or bones develop independently?

The Journal of Mental Science. April, 1876. Edited by H. Maudsley, M.D., and T. S. Clouston, M.D.—In the first article Dr. Laycock concludes his sketch of the history of the notions of the reflex action of the brain of which he laid so large a foundation, and on which others have erected the doctrines of "unconscious cerebration" and automatic action. "The Hypodermic Injection of Morphia in Insanity," by J. M'Diarmid, M.B., is an account of very wide experience in that method of treatment, and advocates strongly the value of opium as the best hypnotic and sedative in insanity, a position from which it has been in some measure ousted by more recent rivals. Dr. Hack Tuke contributes an account of the Past and Present Provision for the Insane in the United States; J. R. Gasquet, M.B., a paper on the Use of Analogy in the Study of Mental Disease; P. M. Deas, M.B., contributes an account of a visit to the curious "Insane Colony" of Gheel, in Belgium. The remaining articles are on Lunacy in British Guiana, by James S. Donald, and on General Paralysis, by Dr. Isaac Ashe.

Exercises in Electrical and Magnetic Measurement, with Answers. By R. E. Day, M.A. London: Longmans, Green, and Co. 1876.—The foundation of all science in the present day is mathematical, and very little knowledge is of any service unless it rest upon this exact basis. This little book of Mr. Day's will prove of great service to students who are preparing for scientific examinations, and who wish to familiarise themselves with the mathematical treatment of electrical and magnetic problems. Any student who will patiently work through the few hundred questions contained in this volume must improve his knowledge vastly, and will probably replace his crude, inexact, and general notions by the accurate facts of a science which, for practical purposes, is nothing if not exact.

Virchow's Archiv. Vol. LXII., Part 2. Feb., 1876.—The chief articles in the current number are on the Structural Changes in the Kidney after Ligature of the Vein, by Buchnold and Litten; Histogenesis of Secondary Cancerous Growths in the Diaphragm, by A. Radzewsky; on the Pathology of Acute Enlargements of the Spleen, by Dr. Socoloff; on the Nerve-endings in the Frog's Heart, by Leo Gerlach; on the Relation of Phosphoric Acid to Nitrogen in Urine, by Dr. W. Zuelzer; and on the Sphygmography of the Carotid Artery, by Dr. E. Mendel. The last article is a search for abnormalities in the carotid tracings of the insane.

THE LANCET.

LONDON: SATURDAY, APRIL 29, 1876.

ANOTHER great step has been taken towards the realisation of a Conjoint Scheme for England. The Council of the Royal College of Surgeons have agreed to accept this scheme. It has generally been understood that the College of Surgeons was the fastidious party in the various attempts to form a happy family out of the motley group of bodies which make up the medical authorities recognised by the Medical Act. The great institution of Lincoln's-inn lies under this reproach no longer. Not that there is not a party in the College which looks with no particular favour on this Conjoint Scheme, and which regards the acceptance of it as a sacrifice on the part of the College greater than she should have been called upon to make. We believe there is such a party, comprising some very respectable members of the Council. But they have found it inexpedient to press their objections against a majority of probably two-thirds, and accordingly, at a meeting on the 21st, the Council accepted the scheme. It is not likely that any other of the bodies affected will offer any serious opposition to the scheme, and we may take it for granted that it will be adopted.

The essential parts of this scheme are the creation of a board of fifty-two examiners, of whom sixteen are to be appointed by the Universities, as we have already explained to our readers, and twelve by each of the medical corporations—namely, the Royal College of Physicians, the Royal College of Surgeons, and the Society of Apothecaries. Though these bodies are to appoint the examiners, the choice of the bodies will be limited, for it is a further essential part of the scheme, as of previous schemes, to create a body to be called the Committee of Reference, which will have, among other great powers, that of nominating twice the number of examiners to be appointed. The several medical authorities will therefore have to select one of two examiners nominated by the Committee of Reference. This Committee will probably come to be regarded as more influential than any single medical authority in the country, excepting perhaps the General Medical Council, the more so as provision is made for the indefinite re-election of members. It is to consist of twenty members—namely, eight to be appointed by the four Universities, four to represent Medicine and four Surgery, and four by each of the medical corporations. They will not only have the nomination of examiners in their power, but it will be a part of their function to arrange and superintend all matters relating to the examinations "in accordance with regulations approved by the co-operating medical authorities, or the majority of them." These words, as far as they have any definite meaning, give very serious powers to the Committee of Reference, and leave very little influence to any individual corporation, especially when it is considered that the Universities will command eight out of twenty votes. The College of Surgeons, for example, would be powerless in opposition to the Universities in harmony with the College of Physicians, even with the support of the Apothecaries' Society. This concession cannot be too much praised on the part of the College of Surgeons, which has most to lose by a Conjoint Scheme. But it is only right to say that the large influence of the Universities in the Committee of Reference will give great weight to its decisions, as they have no financial interest in the scheme. The fees of candidates for examination are to be not less than thirty guineas, to be paid in two or more payments. Candidates who shall have passed the Final Examination conducted by the board will receive the licence of the College of Physicians, the diploma of the College of Surgeons, and the licence of the Apothecaries' Company. It is understood that, liberty being left to the co-operating medical authorities to confer, as they think proper, their honorary distinctions and degrees, each of them will abstain, so far as allowed by law, from the exercise of its independent privilege of giving admission to the Medical Register. Every member of an English University who has passed such an examination or examinations at his university as shall comprise the subjects of the Primary Examinations conducted by the Board, and also shall have completed not less than four years of medical study, shall be eligible for admission to the Final Examination on payment of a fee of five guineas. But, after passing, he is to pay a sum not less than twenty-five guineas, in consideration of which he is to receive the qualifications of the various corporations. This clause raises some fine questions which we have not space here to discuss.

In an appendix to the scheme, the important question of the distribution of the fees received for examination is disposed of. Half of the sum so raised is to go to the payment of examiners; the remaining half is to be distributed in sixths, thus:—Towards the maintenance of the Museum of the Royal College of Surgeons as an institution of national as well as professional importance, for its unendowed professorships, and other allied expenses, two-sixths; to the Royal College of Physicians, in respect of qualifications to be granted, one-sixth; to the Royal College of Surgeons, in respect of qualifications to be granted, two-sixths; to the Society of Apothecaries, in respect of qualifications to be granted, one-sixth.

Such is the scheme to the trial of which it looks as if our English medical authorities were going to be committed. It will be seen how much has yet to be done by the Committee of Reference before details are arranged, and how difficult it is at the present time to say how the scheme will work. Criticism must be largely suspended till these details are announced. The scheme is, to say the least, complicated and costly. Perhaps it is the best that could be made out of such conditions as exist. The trial of it will be an experiment of doubtful issue, and probably not the least potent consideration with the bodies in giving their adhesion to it is the provision in Clause 12, that any of them shall be at liberty to withdraw from it at any time after the lapse of five years from the 1st day of October, 1876, after a year's notice in writing to each of the co-operating bodies. For ourselves, we cannot regard it as a final settlement of a great question; but we shall watch the working of it with much interest.

LORD WENLOCK, the Lord-Lieutenant of the East Riding, is a member of the York Rural Sanitary Authority. At a late meeting of that authority he moved that for the future he amount paid to the medical officer of health should be £50 a year, instead of £200, as formerly. The holder of the appointment at the time when this proposition was made, Mr. J. J. F. MARSHALL, had been appointed on the 1st March, 1873, and consequently he had held the office for three years. The area of the district over which his duties extended measures 68,000 and odd acres, the population exceeds 19,000. Half his salary was paid by the Rural Sanitary Authority, half by the Local Government Board. He was not debarred from practice. At the first blush it might seem that Lord WENLOCK's motion was a censure upon the manner in which Mr. MARSHALL's duties had been performed; but this was very far from being the case, for his lordship, in speaking upon his motion, was careful to explain that it had no personal significance, and to speak in high terms of the ability and efficiency with which Mr. MARSHALL had performed his duties. Nay, this very ability and efficiency were, Lord WENLOCK said, paradoxical though it may seem, one of his arguments in support of his motion. Indeed, Lord WENLOCK has come, after three years' observation of the working of the new sanitary organisation in his district, to certain conclusions respecting the duties of a medical officer of health, as well actual as relative to the duties of the inspector of nuisances in rural districts, which have a wider interest than that which is merely local. In his opinion, as reported in the *York Herald*, the officer whom the Sanitary Authority ought to appoint at the highest salary was the inspector of nuisances, and not the medical officer. The medical officer had no doubt a great number of duties laid down for him, but these duties, he maintained, were mainly, if not wholly, either directly opposed to, or so exactly analogous to, the duties of the inspector of nuisances as to render the necessity of two such officers almost useless in a rural sanitary district. In Lord WENLOCK's opinion, the duty of the medical officer was simply to give the Sanitary Authority his opinion on cases which were reported to him by the inspector of nuisances. It was not his duty to go about except under their directions, or when particular cases were brought under his notice by the inspector of nuisances. In his opinion the inspector of nuisances was the officer towards whom they ought to look for reports as to the general health of the district and to the nuisances in the district, and then, if they did not find that their orders obviated the cause of the disease, they should ask for the report of the medical officer. When the Sanitary Authority was first instituted, he himself maintained that it would be far better for them to have appointed a medical officer for a much larger district—a man who could give them at once a general tabulated report of where disease was likely to arise, where it could be prevented, and where, in cases of special disease arising, special means might be adopted to meet that disease. The Sanitary Authority had, however, thought it advisable to appoint a gentleman at a much higher salary than, perhaps, any other union in the district. As regarded Mr. MARSHALL, he had done his duty in a most exemplary manner; but the inspector of nuisances had a very much larger field of duty than the medical officer. He had to go through the whole of the district and to report upon bad drainage, and if he could not find a cause for anything like disease or outbreak of fever, it was his duty to call in the assistance of the medical officer. Therefore, Lord WENLOCK held, they had no necessity to employ so highly-paid an officer as Mr. MARSHALL.

This extraordinary argument deserves attentive study as an illustration of the kind of notions which still prevail among many otherwise intelligent men of the principles and aims of the present sanitary organisation. How Lord WENLOCK professes to reconcile his views as to the respective duties of the medical officer of health and the inspector of nuisances with the official regulations under which they work it is difficult to conceive. Upon the same principles he would argue, we presume, that the common sailor and common soldier should be paid at a higher rate than their commanding officers, and that the general practitioner or solicitor should receive a higher fee than the consulting physician or surgeon or barrister to whom he appeals in case of difficulty. According to Lord WENLOCK, the inspector of nuisances is the true sanitary officer, the medical officer of health being virtually a superfluous appointment in rural districts. In other words, an intelligent knowledge of the causes of disease and of their modes of operation are not needed for sanitary work in rural districts! The York Rural Sanitary Authority has practically accepted this view by reducing the salary of their medical officer of health one half. A Mr. WADE, with a just sense of the preposterousness of Lord WENLOCK's motion, observed that it proposed to give the medical officer of health a salary less in amount than the wages of a bricklayer's labourer; and a Mr. NICHOLSON, following, observed that no medical man could or would do the work for £50 a year. Thereupon Lord WENLOCK was induced to substitute £100 for £50. This change was accepted by the Authority, and Mr. MARSHALL was asked to retain his appointment on these terms. He, however, with a just regard to his own worth and the dignity of the profession, refused to hold longer a post of which his own efficient discharge of its duties had been made an argument for its depreciation both in status and in money value.

THE annual meeting of the General Medical Council is to be held on the 24th of May, and, though the period is too late for any effect on legislation this year, promises to be an important one. There will be something very painful in the conspicuous absence of two of its late most honoured members, who, though not absolutely young, were far too young to be lost to medical science, and to the Medical Council. One of the questions that may again engross the attention of the Council is the admission of women to the medical profession. Though the Council is not likely to spend much more time over the absurd Bill of Mr. COWPER-TEMPLE, it is not unlikely that the question of the admission of women to the profession will be raised in the Council in another form. It is known that the claim of certain women to be examined with a view to be licensed in Midwifery by the Royal College of Surgeons, and thereby to acquire the right of admission to the Medical Register, has led to difficulties in the Royal College of Surgeons. It is felt by others than the examiners in midwifery in the Royal College of Surgeons, that to admit

women to the Medical Register on the strength of a merely obstetrical education would be a serious thing. It is probable that the attention of the Council will be called to this point by the Obstetrical Society. The Medical Council is really the body to which this question should be referred. It is the guardian of the Medical Register. It has definite views as to the conditions on which alone admission to the Register should be obtained, and has embodied these views in the form of Recommendations to the Licensing Bodies. It is almost inevitable, under these circumstances, that its opinion at this juncture should be sought or expressed without being sought.

Another question of great moment to the profession might well engage the Council for a time—viz., the distribution of copies of the Register among the registrars of the country, with a view to their being at least informed as to the qualifications of those whose certificates of death they accept. The recent unpleasant disclosures of the extent to which unregistered practitioners supply the data which make up our death statistics cannot have escaped the attention of the Council, and should be the subject of remonstrance on its part.

It is probable that the Council will be asked to give its approval to a Conjoint Scheme for England. This is not the first time that the Council has approved an English scheme. But on former occasions the scheme has been imperfect, and one or two conspicuous bodies have not been included in it. Now, for the first time, is likely to be brought forward a scheme to which all the English bodies, including the Universities, are parties, and which is likely soon to come into operation. The importance of this question, as it comes before the Council, cannot well be exaggerated. The Council will have to consider whether the scheme is at once simple enough and comprehensive enough; whether it provides a guarantee for a fair examination, at a reasonable cost, for the student, on the one hand, and, on the other, whether it is likely to work well and to deal fairly by the individual bodies more or less concerned in such a scheme. But the Council will not be able to content itself with considering the scheme merely as one affecting English bodies. It will have to ask the representatives of the Scotch and Irish bodies whether anything is being done in their divisions of the United Kingdom to mature a similar scheme. The failure, up to this time, of the English bodies has been a sufficient excuse for the Scotch and Irish saying that such schemes were impracticable. But if an actual conjunction of bodies can be shown to have taken place in the larger division of the kingdom, it will not be easy to acquiesce in separate action in the smaller divisions. The moral influence of agreement on the part of the English corporations and universities must, we should think, count for something on Scotch and Irish corporations and universities. If not, we shall have a more unequal system of examination than ever, and a tendency in students to prefer the easiest, the cheapest, and the least complicated examination that can be found, which, presumably, will not be that represented in the English Conjoint Scheme.

Besides these questions, doubtless many others of a more usual character will arise, such as schemes for repeating or continuing the visitation of examinations, and the consideration of the answers of bodies to the remarks of visitors and the general criticisms of the Council, &c. &c. We have said enough to indicate that the Council will have work enough to do and questions grave and knotty enough to discuss.

FEW more humiliating conclusions have been arrived at in therapeutics than that which a leading physician in London came to about ten years ago, as the result of his hospital experience—viz., that medicine had nothing more efficacious to oppose to the course of rheumatic fever than mint-water! Not that it did any good, but that nothing else materially affected the course of the disease. We never believed in this conclusion, and we do not now. If it was justifiable then, we venture to hope that it is no longer so. We have lately published accounts of the action of salicin and salicylic acid in acute rheumatism in a certain number of cases, which seem scarcely to allow us to doubt that these substances cut short the process of acute rheumatism as certainly as quinine cuts short the process of intermittent fever. Dr. MACLAGAN, of Dundee, explained, in THE LANCET of March 11th, how he came, quite independently of, and prior to, any other physician, to treat rheumatic fever with salicin. He regarded the disease as miasmatic in its origin, like ague, and likely, therefore, to yield to a medicine of virtue in intermittents. This theory is of little consequence. We think it almost certainly a wrong one. But it led him happily to the use of salicin, and the salicin stopped the rheumatic fever in six or seven cases. That is to say, that a patient with anxious face, a temperature of 102° and over, acid sweats, joint-pains, &c., would, in twenty-four or forty-eight hours after, experience a great diminution of pain and a fall of two or three degrees of temperature, and in four or five days be free from pain and convalescent. In other words, the course of the malady was changed from that of a disease requiring six weeks to that of a febricula, extending over less than six days before the return to a normal temperature and entire freedom from pain. This is a promising result, and, if it should be confirmed by a larger experience, will be a matter of congratulation to mankind. On the 8th of April our "Mirror" contained particulars of four cases treated in St. Mary's Hospital by Dr. BROADBENT with, not salicin, but salicylic acid, in accordance with the practice of STRICKER, of Berlin. The results were as striking as in Dr. MACLAGAN'S cases. Temperature came down rapidly, and pain was relieved quickly.

We cannot forbear noticing in an editorial way such important therapeutical statements as these, if it were only for the purpose of asking practitioners without delay to test them by a use of the remedy in similar cases. Dr. MACLAGAN gives salicin in preference to salicylic acid. Doubtless the action of both in rheumatic fever is identical, but he gives good reasons for preferring salicin. We must guard our readers from supposing that we consider the power of salicin or salicylic acid settled by these experiments. It will take a very much larger number of cases to decide this question or any similar one. We have too often been lifted up in regard to the power of medicines only to be cast down again. But enough has been done of late years to make us more hopeful and less sceptical. Dr. WILSON FOX'S results in cases of rheumatic hyperpyrexia, the effects of veratrum viride in the hands of Dr. SILVER in relieving pain and re-

ducing temperature in the disease under consideration, the similar effects in other hands of quinine in conjunction with alkalies and opiates, warrant us in hoping that rheumatic fever will soon be recognised as one of the diseases in which physicians can be something more than students of natural history. We shall be glad to publish well-reported cases bearing on the efficacy of the salicin or salicylic acid.

Annotations.

"Ne quid nimis."

DISEASE SPREAD BY MILK.

PUBLIC attention has again been directed to the danger of the system of milk-supply still current in large towns. Milk brought from the country in cans by the night trains is carried by the retailers to their own premises, where it often remains for five or six hours. These premises are often dirty little shops or kitchens close to the rooms in which the families live. There is no security whatever that epidemic disease may not be raging in the place, that vessels contaminated in the worst possible way may not be used to contain the milk, or, except in places where the Adulteration Act is rigidly enforced, that the milk may not be adulterated with foul water.

Now, although such conditions would at all times have been considered disagreeable by persons of cleanly tastes, they could not, a few years ago, have been pronounced positively dangerous. But the last few years have brought a flood of new light to bear on the peculiarities of milk. We now know, at the cost of many serious epidemics, how peculiarly sensitive to noxious influence is the fluid which forms so important a part of the national food-supply. If clothing will spread the infection of fever, so, when once infected, will milk, and that in a far more insidious and extensive manner, for with milk it is impossible to say how widely or how far the disease may be carried. If water will carry the germs of cholera and enteric fever, so will milk, and with milk there is the added danger, not indeed demonstrated, but suspected by many, that the highly complex organic constituents, so closely analogous to those of the body, which are present in it, may serve as a pabulum for the development and indefinite multiplication of disease germs. Recent experience seems to show that milk-spread epidemics are particularly virulent, and the observation tallies with, though, of course, it cannot be said to establish, the last-named theory. The ease with which milk receives and carries infection is illustrated by the absolute and well-known necessity for purity of air and perfect cleanliness in dairy operations.

With this knowledge before us it is impossible to help asking why dairies are not placed under inspection? Public-houses, slaughter-houses, common lodging-houses, and alkali works are all under inspection with manifest advantage to the public, and with no real injury to the owners. The respectable dairymen would have nothing to fear, and would suffer no inconvenience from the occasional visits of an inspector, and his customers would be saved from a terrible risk. In large towns special officers must, of course, be appointed, while in rural districts the work could be done by the sanitary inspector. We believe the result of such a reform would be an important diminution in zymotic diseases, for it is becoming evident that milk is responsible for a great deal more of this kind of mischief than is commonly supposed. For one epidemic traced to milk there are probably many which attract less attention, but to which, if closely studied, a similar origin might be assigned.

Meantime the protection of the public must be left to the unaided efforts of medical men, whose duty it clearly is to watch carefully all dairies which come in their way, and to give timely notice of any apparent source of danger.

THE ARTISANS' DWELLINGS ACT.

THIS ACT, the passing of which will long be remembered as one of the greatest achievements of the present Ministry, is beginning to bear valuable fruit. A scheme for the improvement of a district in Whitechapel has reached one of its last stages—that of getting from the Secretary of State for the Home Department a confirmation of the scheme which has been prepared, and accordingly Mr. Cubit-Nichols sat on the 21st instant as the representative of the Home Secretary, to hear a full statement of the scheme from its promoters, who, in this case, are the members of the Metropolitan Board of Works. There can be little doubt that the scheme will be "confirmed," and that in due course the proposed improvements will be carried out. The area proposed to be "improved" consists of six acres and three-quarters of land, having a population of 4350, occupying 444 dwellings. The acquisition of the land and the cost of road and sewer-making are reckoned (due allowance being made for recoupment by sale of sites) at £54,400.

It is proposed to erect buildings which shall occupy an area of three acres and a quarter, while three acres and a half will be assigned to open spaces, roads, and playgrounds for children. It is proposed to erect 1077 tenements, of which 800 will be of one room only. The total accommodation will be for 3600 persons. The occupants will probably be persons earning £1 a week on an average, and the rental for each room will average £4 15s. per annum, which, after deductions for repairs, taxes, &c., will yield a net rental of about 5 per cent. on the cost of the buildings.

The necessity of the scheme was abundantly proved. The present occupants of the site are chiefly Irish, and the Catholic priest who labours amongst them gave a sad account of the overcrowding and squalor. Mr. Liddle and Mr. Joseph Loane, the medical officers of the district, showed that in this area the death-rate varied from 46 to as much as 58 per 1000, against 17·4 and 20, which had been the death-rate among the 8000 persons occupying the various blocks of Peabody buildings. We congratulate the authorities in Whitechapel, who have acted so promptly on the representations made by their medical officer, and we trust that the good example thus set will be quickly followed by other districts of the metropolis.

NON-CERTIFIED DEATHS AND INFANTILE MORTALITY.

MR. H. E. ARMSTRONG, the medical officer of health for the borough of Newcastle-upon-Tyne, in his recently issued report on its sanitary condition during 1875, draws attention to the relation between the proportion of uncertified deaths and infant mortality. Having pointed out that the proportion of deaths of infants under one year of age to births registered averaged 18·8 per cent. in the whole borough, whereas it was 20·2 in All Saints and 19·8 in Byker sub-districts, he remarks that some light is thrown upon these high infantile rates by an analysis of his table of uncertified deaths. It appears that the number of deaths in Newcastle during 1875 relating to the cause of which no medical or other legal certificate was produced to the registrar, was 176, or nearly 5 per cent. of the total deaths In London the proportion of uncertified deaths does not exceed 1¼ per cent. These 176 uncertified deaths in Newcastle included 110 of infants under one year of age, equal to 11 per cent. of all the deaths at this age. In Westgate

sub-district the proportion of uncertified deaths of infants under one year of age was but 4 per cent., and in this sub-district infant mortality was considerably lower than in any other part of the borough. In Byker and All Saints sub-districts, however, the causes of 15 and 19 per cent. respectively of the deaths of infants under one year of age were uncertified; and, as before stated, the rate of infant mortality showed a marked excess in both those sub-districts. Indeed, it is not difficult to believe that the gross neglect which allows 19 per cent. of the infants in the All Saints sub-district of Newcastle-upon-Tyne to die without qualified medical attendance must exercise an undoubted influence upon the rate of infant mortality. Nothing short of some form of medico-judicial inquiry into all cases of uncertified deaths will afford any check to this waste of infant life, which the present state of the law is powerless to control. We trust that all medical officers of health will furnish in their reports information bearing upon the connexion between uncertified deaths and infant mortality. Public attention may thus be directed to the importance of the subject.

SIGNOR ROSSI AS HAMLET.

THE interpretation by tragedians of acknowledged reputation of the greatest character which it has ever entered into the mind of any dramatist to conceive, must always be a matter of great interest to the intellectual public. We therefore make no excuse for directing our readers' attention to Signor Rossi's performance, more especially because the press in general seem inclined to do but scant justice to his great intelligence and histrionic power. The terrible weather we have been experiencing had unfortunately deprived Signor Rossi of his full vocal powers, so that he was doubtless seen at first at a great disadvantage. It was remarked last year of Salvini's Hamlet, that it represented an Italian rather than a Dane, and that the traits which might be considered as characteristic of the Northern temperament were absent. The same remark may be made of Rossi's impersonation; but since there is no evidence that Shakspere intended Hamlet to represent a national type, and since there is doubtless as much of the Southern as the Northern temperament in his character, we cannot agree with those who take the somewhat narrow view that no Italian *ought* to attempt to depict the Danish prince. Signor Rossi illustrates one side of Hamlet's character in a manner far superior to any actor who has played the part of late years. We mean the excitable temperament of the Prince of Denmark, the temperament which causes his mind at certain stirring points of the play almost to topple into madness. In the first act, when the Ghost appears, Hamlet, overcome with awe and surprise, reels backwards for a second as he utters the words "Angels and ministers of grace defend us!" and when the Ghost finally disappears, he falls prostrate on the earth in a momentary swoon, and the lines—

> "Hold my heart,
> And you, my sinews, grow not instant old,
> But bear me stiffly up"—

are recited at full length on the ground. The effect thus produced was very good, and we believe quite true to nature.

The first real hit made by Signor Rossi was in the soliloquy at the end of the second act, beginning "O what a rogue and peasant slave am I!" which we never remember to have heard more finely given. When he summed up the King's character in the words—

> "Bloody, bawdy villain!
> Remorseless, treacherous, lecherous, kindless villain!
> O vengeance!"

his excitement was something terrible to witness, and his self-accusations of falling "a-cursing like a very drab—a scullion!" received a point and a meaning which is seldom given to them. This wave of excitement having passed over his brain leaves him for a moment dazed, and it is some moments before he can concentrate his thoughts on the scheme of the play. At the end of the play scene Hamlet's excitement again culminates in a manner which is warranted perhaps by the exigencies of Signor Rossi's conception of the part, but scarcely by the words of the text. The words "Come, some music; come the recorders," seem, as uttered by Signor Rossi, to be the pitiful prayer of a lunatic for the soothing influence of harmony. In this we think the actor is not in accordance with the poet.

Hamlet's excitability next shows itself in the closet scene, and at the words "A King of shreds and patches" he wrests the miniature from the Queen's grasp and tramples it in the dust in a very ecstacy of maniacal rage. At this instant the Ghost appears, and the effect of the apparition on the raging Hamlet was fine indeed, and his condition when the Ghost departed and he came to himself reminded one of an epileptic patient who has been tormented by some visual aura, and whose mental faculties have been scattered for the time. When Signor Rossi, at the grave, grapples with Laertes, it seems all of a piece with the character which we have seen thus played before us in the previous acts, and does not appear as the single unwarrantable action of the drama as it often does when the part is attempted by other actors; and in the final scene, where Signor Rossi mutters to himself as he fences with Laertes, and lastly rushes on the king with the impulsiveness of a whirlwind, we have a termination which is quite consistent with the view taken of Hamlet's character by this actor. The impersonation is a good one, and in certain points which we have indicated it is even "*great*."

THE ROTUNDA HOSPITAL, DUBLIN.

THE governors of this well-known hospital have sanctioned a proposal, made by the able master, Dr. Lombe Atthill, which is likely to have an important influence on the future of the charity. This hospital has been for over a hundred years a great lying-in institution, 2000 women having been annually delivered within its walls. Owing, however, to the improved condition of the poor of the Irish metropolis, and partly perhaps from an outcry raised against lying-in hospitals, that number has of late years been reduced to about 1200 or 1300 deliveries within the year. On the other hand, a much larger number of chronic cases have been admitted, and three large wards are now wholly devoted to the reception of patients with uterine diseases. Until recently the extern department was of very limited extent. Three years ago but 77 women were attended at their own homes during twelve months. The late master, however, Dr. G. Johnston, seconded by his assistants, succeeded in extending that department considerably, and during the past year 400 patients were delivered at their own homes. The Board have now resolved to render this branch of the charity as efficient as possible, and with this view have sanctioned the appointment of a paid clinical clerk, to be selected after competitive examination from among the pupils who have completed the usual term of study at the hospital, but who have not obtained a registerable qualification. His duties will be to superintend the patients in the extern maternity, under the direction of the master and assistant-physician of the hospital. There is very little doubt that this step will lead to an extension as well as to a more efficient working of the department. The governors are also about to erect a detached building for extern patients suffering from uterine disease, large numbers of whom apply daily for relief. When this is completed, and the proposed repairs and improvements in the chronic wards are effected, the efficiency of the hospital will be very greatly increased.

CAPTAIN DOUGLAS GALTON ON CHOLERA.

CAPT. DOUGLAS GALTON'S paper "On the Sanitary Progress of India" at the Society of Arts, on the 21st inst., was chiefly interesting as an illustration of the sort of reasoning which governs the Army Sanitary Commission of which Capt. Galton is a member. This was, perhaps, best indicated in his references to cholera. Cholera, Capt. Galton observed (according to *The Times* abstract of his paper), "was a moving epidemic disease," whatever this may be. We commend the phrase to examiners in State Medicine as a test of knowledge of words and their meanings. He continued, "There was no evidence to show that cholera was a contagious disease." It would be interesting to know in what sense the word "contagious" was used here. "Facts," added Capt. Galton, "did not support the opinion that it was spread by war or propagated by the highways of communication." This in face of the last great dissemination of the disease from India, to say nothing of previous ones. Evidently European pathologists and observers, and the great majority of Indian pathologists and observers, are incapable of appreciating "facts." "Foul and deficient water-supply, use of bad and foul water from tanks and wells, prolonged inundations, the ground retaining moisture and damp, deficient ventilation, errors of diet, &c., were the *causes*, aided by the congregation of large bodies of people at the famine-relief centres, or in pilgrimages." In other words, according to Capt. Galton, conditions which are common to the greater part of India, and of the tropics generally, are the "causes" of a disease which is endemic only in a particular part of Bengal! This is the true ring of the Army Medical Commissioners' memoranda on the sanitary relations of Indian maladies. Either Capt. Galton draws his inspiration from pathological and etiological sources which have been sealed for the last twenty-five years, or European observation goes for nothing in his mind in regard to cholera, or the pathology and etiology of that disease are questions for the engineer and not the doctor. In the last-named case the teachings of Parkes and Aitken at Netley cannot be justified.

LORD LYTTELTON.

A CONTEMPORARY infers that "the unhappy death of Lord Lyttelton will probably have the effect of directing the attention of medical men more closely to the terrible disease known as melancholia." It has apparently been led, by Dr. Andrew Clark's definition of the disease as "depression without a delusion," into thinking the case an extraordinary one, instead of an example of every-day character of the most common form of insanity. A considerable proportion of cases of melancholia have no definite delusion, and the fact has been made the ground for dividing the cases of melancholia into two groups, with and without specific delusions. The commonness of suicide in melancholia is, of course, a well-known fact, as also is the circumstance that suicide may be committed quite independently of any delusion pointing in that direction. The case illustrates very sadly the extreme care and unremitting watchfulness which are needed in the management of such cases, and which are now and then unhappily unavailing.

GOVERNMENT OFFICES.

COMPLAINTS have frequently reached us of the great neglect of sanitary details prevailing at the Government offices; not only does it appear that the ventilation of the offices themselves is bad, but that pains are taken to direct the sewer gas from the drains into the already fetid air of the buildings. This arrangement seems to have been carried out with complete success in the new buildings of the public offices at Whitehall. A correspondent to *The Times* writes:—"The drainage is so defective that visitors to the buildings, and those whose unfortunate lot compels them to pass their lives there, are forced to breathe an atmosphere which their sense of smell soon tells them is tainted with sewer gas. The drains pass in some parts under the buildings, the joints are defective, and the buildings have settled, the result being that the basement is in part flooded." Who is responsible for this mismanagement? Is this a specimen of the way contracts are carried out under the supervision of the Board of Trade? The statement we have quoted reads rather like the description of some suburban villa run up by a roguish speculator who had "squared" the surveyor than of a building erected under the dignified auspices of the Board of Works. We should naturally expect that a Government that has made such large promises of sanitary reform would endeavour to set an example to the country by making the sanitary arrangements of the buildings under their control models of completeness; they have, however, neglected to provide even fairly decent and healthy accommodation for their *employés*.

PROSECUTION UNDER THE PUBLIC HEALTH ACT.

THE rigorous enforcement of the sections of the Public Health Act which forbid the transit by public conveyance of the sufferers from infectious diseases is absolutely necessary for public safety. The middle classes are probably the most flagrant offenders with regard to railway conveyance. The temptation is almost irresistible to send a servant or a school-boy home who is becoming ill with what is probably a contagious disease. It is so much the simplest course, so much the most agreeable, in many cases, to the patients' friends. For its repression, it is necessary to enforce the penalty in every instance. It is only by this method that the public can be brought to look on the offence in its right light, and to regard it as an offence against social morality. The more conspicuous the example, the more useful it is, and we are glad therefore to observe that the law has been put in force in the case of the sons of Sir Courtenay Honywood, lately sent home from Lewisham, where they were at school, while suffering from scarlet fever. The defendant, Mr. Edmund Couldery, seems to have pleaded as justification that the disease was only commencing, "there was no appearance of a rash." As the director of an educational establishment, he certainly should have known that the disease is almost as communicable in its early as in its later stages. We hope that the example of the prosecution will be followed whenever the Act is transgressed.

THE PLAGUE.

SINCE our last notice of the progress of plague in Mesopotamia, the disease has made its appearance in two other places—namely, in Kut-el-Amara, a village situated below Bagdad, on the right bank of the river Tigris, and Nedjef (Meshed Ali) one of the two cities lying between the great marshes on the west bank of the Euphrates, south of Hillah, and the Syrian desert, and which are places of pilgrimage for the Shiah Mahommedans. The latest details from Hillah and Bagdad are to March 31st and April 1st respectively. In Hillah, 76 cases and 34 deaths were reported from the 20th to the 26th March, and 66 cases and 42 deaths from the 27th to the 31st March inclusive. In Bagdad the progress of the disease has been as follows:—16th to 20th March, 29 cases, 15 deaths; 21st to 27th March, 119 cases, 45 deaths; 28th March to 1st April, 145 cases, 75 deaths. A private telegram received in London from Bagdad, April 17th, states that plague was then decreasing in that city.

THE LATE DR. BAILLIE CORMACK.

WE rarely record a death more to be regretted than that of Dr. J. R. Baillie Cormack, the eldest son of Sir John Rose Cormack, of Paris. Dr. Cormack's life has been earnest, courageous, and of richly deserved honour. His future beamed with promise for himself and for the profession he adored. At the time of his death he was resident Medical Officer of the Hertford British Hospital, to which his father is one of the physicians, and here his services shone conspicuously. During the late war he was amongst the first of the professional heroes of that sad time. In the ambulances, and on the battle-fields outside Paris, he treated the wounded with a skill, endurance, and courage that knew no weariness; and while the fighting went on in the streets, during the days of the Commune, he assisted his father in the Ambulance Anglaise, amidst scenes of danger which taxed the powers of the boldest and most experienced men.

From the effects of the privations in Paris he was rendered much emaciated; but he recovered his condition, and until October, 1875, remained in excellent health. Then appeared the first signs of pulmonary consumption, under which disease he continued to labour until his death, which took place at Hyères on Friday, April 21st. To the last he had the consolation of his father's unremitting skill and care, and, so consoled, he met his fate as he had carried his life, ready to obey the absolute decree, and regretting only that the hopes he had excited of his success in the science of medicine were not realised for the advancement of the science and for the good of his race. Baillie Cormack died in the twenty-eighth year of his age.

THE WARRANT—WHERE IS IT?

AFTER the very decided way in which the War Minister expressed his intentions in regard to the Army Medical Service, it was generally believed that, to use a common expression, he had a Warrant "ready cut and dried," and the appearance of this document has been confidently expected from day to day from that time up to the present. It was certain that compulsory retirement at sixty years of age from the senior ranks would form one element, and nearly equally certain that promotion at twelve years' service for the junior grades would form another element in the Warrant, which, up to this moment, has not, however, been published, although it was generally expected that it would take effect from the 1st of April. Whatever may have been the cause of the delay, the promulgation of the Warrant, now that Mr. Hardy has returned to town, may be immediately looked for.

THE COPPICE, NOTTINGHAM.

THE twentieth annual report of this institution, of which Dr. W. B. Tate is the medical superintendent, has just been issued. The Commissioners in Lunacy state that the present sanitary condition of the inmates is very favourable:—"As on former occasions, we have an excellent account to give of the condition and treatment of the patients, who during our visit were entirely free from excitement, and who in their dress and demeanour, and in the absence of all complaints, gave the most unmistakable evidence of judicious management on the part of Dr. Tate and proper attention from the attendants and nurses." The commissioners again press upon the consideration of the asylum committee the question of an extension of the present accommodation, and Dr. Tate also strongly urges that no further delay shall be permitted to take place in the enlargement of the building. That the existing space is quite insufficient has been shown over and over again, and it is difficult to understand why the governing body should persist in ignoring the urgent representations made to them. We are pleased to record the fact that the father of a late patient, in gratitude for kindness shown to himself and to his afflicted son during a three years' residence in the Coppice, has given the handsome sum of £2500 for the purpose of enlarging the building. As Dr. Tate observes, such acknowledgments of gratitude are of rare occurrence, and are most sensibly felt by those who devote their energies to the relief of the insane, as affording a satisfactory proof that their efforts are in some cases fully appreciated.

THE LATE PROFESSOR LORAIN.

THE current number of *Le Progrès Médical* announces that the friends and pupils of Professor Lorain have decided to present the Faculty of Medicine with a marble bust of this *savant*. The letter announcing this intention, and inviting subscriptions, is signed by MM. J. Besnier, Brouardel, Debove, Fionpe, Joffroy, Lépine, Prevost, Quinquand, J. Renaut—former pupils of the deceased professor; as well as by Claude Bernard, Berthelot, Van Blarenberghe, H. Sainte Claire Deville, Marey, and de Mondésir. M. Renaut is the treasurer of the fund.

THE STATE AND INFECTIOUS DISEASES.

THE meeting of the Social Science Association on the 24th instant, for the discussion of the relations of the State to infectious diseases, was distinguished by two things. First, Dr. Alfred Carpenter, who introduced the subject, had a more accurate perception of the difficulties which beset it than is commonly met with; and, next, the Association, through the help of Mr. Adam Scott, gained some light on the subject from the practical experience of countries which, like Holland, have already legislated in the sense which many medical men desire to bring about here. Dr. Carpenter ably showed that legislation which did not provide for the heads of families or guardians of persons, as well as for medical men, giving information as to the existence of infectious disease must necessarily fail. Mr. Adam Scott described the legislative provisions existing in Holland to that effect. Dr. Richardson occupied the chair.

DR. CRICHTON BROWNE, the late able medical superintendent of the West Riding Lunatic Asylum, who has been appointed one of the Lord Chancellor's Visitors in Lunacy, was entertained at dinner last week by a large and influential body of gentlemen connected with the district. Lord Houghton presided on the occasion. At the same time Dr. Crichton Browne was presented with two handsome testimonials, one comprising a silver coffee tray, claret jug, and a cabinet of plate, and the other an epergne. The tray bore the following inscription:—"Presented with a silver claret jug and cabinet of plate on the 18th April, 1876, to James Crichton Browne, M.D., Director for ten years of the West Riding Pauper Lunatic Asylum, Wakefield, in testimony of the esteem and regard of the subscribers for his personal worth, and for the pre-eminent social kindness and constant courtesy which have marked his distinguished career in the West Riding of Yorkshire." Mr. Stanhope, M.P., in handing over the gifts, said that the subscribers included Lord Wharncliffe, Lord Houghton, several members of Parliament, the visiting justices of the asylum, &c., who desired to make some slight acknowledgment of the manner in which Dr. Crichton Browne had conducted the asylum. Dr. Heaton presented the testimonial of the medical profession, and expressed the high esteem in which Dr. Browne is held by his professional brethren. The noble chairman, on behalf of the magistracy and gentry, testified to the sincere regret with which they looked upon his departure.

DR. YELD, Medical Officer of Health for Sunderland, has issued a report of the sanitary condition of the town during the year 1875. The health of the borough was very satisfactory, and notwithstanding a fatal epidemic of whooping-cough and an estimated increase of 3000 to the population, the total number of deaths was fifty less than in the previous year. An outbreak of typhus caused by overcrowding and filthy state of premises occurred in one district, but the further progress of the disease was checked by the removal of a whole family of six persons to the fever hospital, and the thorough disinfection of the infected house. In all cases of death or sickness from infectious or contagious diseases brought under the notice of the medical officer, careful inquiry was made as to the predisposing and existing causes of the disease, the premises occupied by the patients were visited, notices served to cleanse the same, and general instructions given. Dr. Yeld observes, probably with truth, that among the lower classes men are much more careful in avoiding infection than women, and gives instances to support his plea for giving local authorities greater power in dealing with outbreaks of zymotic disease.

MANY of our readers must have heard or read of the fatal case of lithotomy which has so profoundly agitated the medical profession in Australia. We have received innumerable letters, pamphlets, newspaper reports, &c., respecting the matter, but cannot at present further notice it than to record the finding of the jury. After a protracted inquiry, they returned the following verdict:—"We are of opinion that the deceased, Robert Berth, died in the Melbourne Hospital, and that evidence has not been brought before us to prove Mr. Beaney guilty of culpable negligence at the operation. Still, we are of opinion that, had a consultation been held by the honorary surgeons, in all probability other means might have been used in extracting the stone, and we enter our protest against the rule of the hospital being broken." The stone weighed six ounces and a half, and was extracted by "a modification of the median operation."

WE are glad to observe that the staff of the Brompton Hospital are beginning to utilise their extensive and valuable resources for purposes of clinical teaching. The summer clinical courses will commence next week, and be continued every Monday and Wednesday, at 3 P.M. Dr. Symes Thompson lectures on Mondays "On Variations in Cardiac Rhythm," and Dr. Burney Yeo gives demonstrations on Wednesdays "On Clinical Types of Heart Disease." Particulars as to admission to these courses will be found in our advertising columns.

As an instance of enlightened liberality, and as an example which might well be followed by wealthy philanthropists, we are glad to give additional publicity to the munificent gift by Alderman G. Palmer to the town of Reading of thirteen acres of land as a recreation ground. Donations of this kind, while free from disadvantages which unfortunately attend some benefactions, are simply invaluable as contributing to the health and happiness of the jaded and semi-asphyxiated inhabitants of our over-populated centres of industry.

No death from small-pox was registered in London during the week ending 22nd inst., but the inmates of the Stockwell Small-pox Hospital increased to 14 from 11 at the end of the previous week; of these 14 small-pox patients nine were vaccinated and five unvaccinated. The Metropolitan Asylum District Fever Hospitals contained 23 typhus and 12 enteric fever patients on 22nd inst.

A FURTHER illustration of the increasing interest in sanitary matters taken in Birmingham is afforded by another large issue of Dr. Balthazar Foster's excellent lecture on the Comparative Mortality of Birmingham and other large towns. We noticed this lecture when first published, and we would now draw attention to its republication. Birmingham is to be congratulated equally on such teachers and on its appreciation of them, as shown in its calling for this the third edition of Dr. Foster's lecture.

THE Board of Management of the Royal Infirmary, Manchester, have asked assistance from the Local Government Board in making an inquiry into the medico-sanitary state of that hospital. The Board has acceded to the request, and it is understood that Mr. Netten Radcliffe has been instructed to give such assistance as the Board need.

WE are glad to perceive that Mr. Simon was, on the 31st of March last, elected an honorary member of the Society of Physicians of Vienna. Professor Rokitansky was in the chair.

THE ROYAL ACADEMY OF ARTS.

THERE are 1522 works of art in this, the 108th exhibition of the Royal Academy, and were it our duty to do justice to all the specimens which are shown, we should indeed quail before the magnitude of a task which would fill many numbers of THE LANCET, instead of the few lines which we can alone accord to it. The general impression which we gain from a walk through the thirteen rooms occupied by contributions is, on the whole, a satisfactory one. It is one of the advantages, which must be set against the many disadvantages of the constitution of the Academy, that we have before us, occupying the most favourable places, pictures by certain Royal Academicians, who are privileged by their position to exhibit works which, were it not for this happy circumstance, would certainly not find a place on the walls. These pictures are from the hands of men who formerly delighted us with their powers. Comparing them with our recollections of their past productions, we do not find that they have materially retrograded, but when contrasted with the contributions of the rising school of artists, we have every reason to feel gratified at the evident progress which the pictorial art is making in this country. And so it happens that we see in this exhibition works, whose authors possess the coveted letters R.A. after their name, which do not bear comparison with the efforts of other artists whose names appear unembellished by any title. Probably in our own profession there is the same kind of curious contrast as regards the merit of renowned and unknown men, but, owing to the absence of a similar opportunity of comparison, the anomaly is not so apparent. We cannot help thinking, however, that the Academy might do much to rectify a very evident injustice if it opened its portals very much more widely. It is almost ludicrous, in view of the evidence of wide-spread capability before us, to think that the number of Associates of the Academy is only twenty-six! Such exclusiveness as this, we are happy to say, is not to be found in the profession of medicine.

The picture which to our mind bears the palm in the exhibition is by Mr. Poynter. It represents Atalanta racing with Milanion. The fleet beauty is checking her impetuous course to pick up the golden apples which her ardent lover has thrown to the ground, in order to decoy, and consequently delay her. The attitude of Atalanta is perfect. The painter has boldly chosen a position of excessive difficulty and thorough originality, and there is not a line to be criticised. The figure is a masterpiece of drawing and

colouring. The attitude of her competitor is not so satisfactory, but perhaps this is inevitable. He is intended to be running at great speed, and the representation of movement is, of course, only very partially practicable. The body is bent forward (too much forward, it seems to us), and, whilst the left foot is touching the ground, the right lower extremity is extended behind. It is the conventional mode of pourtraying running, but, like the corresponding method of indicating the gallop of a horse by planting its legs on the ground extended before and behind, it is not quite true to nature. Fast running differs from fast walking in that at one period of the step both feet are off the ground simultaneously, and we do not know why the painter should not choose that position which marks the difference. The figure here looks as if he were going at "the double"—a sort of leisurely trot, instead of racing speed. Moreover, his upper extremities are not quite right. The left hand is holding, in a light graceful way, the apple he is about to throw, and the right hand is open, not clenched, as is the position of a runner under great exertion. But these are details which detract but little from the merit of a picture of which England may indeed be proud. Running Mr. Poynter neck-and-neck is Mr. Leighton with his picture, No. 241, "The Daphnephoria," a triumphal procession at Thebes, with a background of stone pines. It is a work of singular grace and beauty, marked, no doubt, by the peculiarity of tone which characterises the painter, but filling the mind with an impression of extraordinary power. These two works stand out as examples of surpassing excellence. Mr. Millais exhibits six paintings. No. 106, a vast landscape, seen from a high moorland foreground, is an exquisite specimen, likely to please, though in a different way, quite as much as his "Chill October" of a few years since. His portrait of Mrs. Sebastian Schlesinger, No. 248, could not but be charming, considering the rare beauty of the sitter. In No. 387, he gives us a child (boy or girl?) who is "Getting Better," after an illness, and is visited by a girl and boy who have brought the invalid a basket of grapes. The convalescent's face is admirably painted. The rest of the picture is not so satisfactory, the boy visitor's figure suggesting posterior curvature of the spine. Last year we had no sick children in the Academy. On the present occasion not only is there this one by Mr. Millais, but Mr. Fildes gives us (No. 476) a most powerful work upon a similar subject. A navvy, who has lost his wife, has returned from his work at midday to find his little girl, whom he had left ailing, much worse, and he takes her on his knee, perplexed and sorrowing, whilst his other children tumble about the floor, healthy enough, but untended. It is a picture of deep pathos, relieved by a glimpse of sunny landscape seen through the open door, and by the figure of an elder daughter who, though scared by the present crisis, is suggestive of helpfulness in the future. We would mark the truth to nature in the inco-ordination of the youngest child's movements as it sprawls on the floor and tries in clumsy fashion to catch a rolling apple. This picture, realistic as is the painter's wont, will bring tears to the eyes of many a parent. A lady gives us another convalescent child, and in No. 867, "In Memoriam," is a young man in bed, and the doctor with his watch laid out on the palm of his left hand, and his right index finger uplifted, giving directions to the nurse about the beef-tea which she is carrying. No. 156 is called "The Apothecary," and is followed by a quotation from *Romeo and Juliet* to indicate the application. But Mr. Marks will forgive us if we suggest that this is a great deal too much of a *savant* for such a person as Shakspeare describes. On the wall is an anatomical diagram of the trachea and bronchi, which it is hardly conceivable that the "caitiff wretch," as he is called, whom "sharp misery had worn to the bones," would have studied. This is a very handsome and extremely intellectual-looking gentleman, to whom we should be inclined to put out our tongue with the utmost confidence, and should not dream of offering less than a guinea fee. However, the picture contains most harmonious colouring, for which the variety of objects introduced furnish abundant opportunities. Mr. Marcus Stone has made a great advance this year in his "Appeal for Mercy;" a wife pleading for her husband's life to a Republican agent, who turns away to read her petition, whilst a brutal *sansculotte*, with his cheek resting on his hands, regards her superciliously.

But we must not linger, much as we should like to dwell upon such works as those of Alma Tadema, F. Barnard (a wonderful scene of street-marketing on a Saturday night in Seven Dials), Leslie, Orchardson, Small (an exceedingly powerful scene of a wreck, with a fisherman's wife in the foreground straining her eyes out to sea, and numerous figures of stalwart men aghast at the catastrophe they can do nothing to prevent), Earle (a truthfully-painted hay-making scene on the Devonshire coast), and a crowd of others.

There is a marble bust of Dr. Radcliffe in the vestibule, which is not very good, and a portrait of Dr. Beale, a fair likeness. Sir Henry Thompson sends a painting of the back of a Neapolitan market-woman praying at a shrine, not quite up to his usual mark, we think. Mr. Propert and Mr. Evershed contribute some excellent etchings. The former has triumphed over the very great difficulty of drawing the interior of a church, with its intricate perspective of arches and columns, upon a copper-plate, but we do not think the subject so suitable to the needle as many with which he has favoured us.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THIS Association held a very successful inaugural meeting at the rooms of the Medical Society, on Wednesday last. A large number of well-known medical men were present, and the proceedings were of a very interesting character.

The Chairman (Mr. Cartwright) read an interesting introductory address, in which he insisted upon the necessity of a thorough medical education for those who practised dental surgery, showing how, when that specialty was undertaken by medically educated men, there were many means of curing diseases, general and local, quite apart from mere mechanical means. He also expressed an opinion that there should be no monopolies in teaching, and referred to the opposition that certain special institutions had shown when some of the general hospitals had given greater facilities for the teaching of dental surgery within their walls, remarking that such teaching might be of the greatest value to army and navy surgeons as to country and colonial practitioners, and saying that if there were any fear of greater competition in the profession he could only say that he would far rather that educated surgeons should devote attention to dentistry than that its practice should fall into the hands of ill-educated persons and advertising empirics. With regard to the certificate of L.D.S., he thought that it had done much good for the dental profession, enabling those to qualify themselves who would otherwise have had no qualification whatever, though he trusted that the time would come when, like other similar diplomas, it would be made adjunctive to the membership of the College of Surgeons; whilst he said that if the Council of that body would pass a rule which would oblige all lecturers on dental surgery, anatomy, and physiology to be fully qualified, nothing could be more conducive towards the improvement of dental education, which must always be dependent upon the high character of its educational establishment. Mr. Cartwright concluded his remarks by expressing a hope that the Association would be able to do much for the benefit of the profession, and he thought that it would be advisable for its fellows to take under their consideration the subject of the dental advertisements which, appearing in the leading daily journals, so terribly mislead the public, and disgrace the profession.

Mr. Hilton, in seconding Mr. Cattlin's proposition of a vote of thanks to the Chairman, said that the College of Surgeons had always taken a great interest in the advance of dental surgery, and he was certain that it would do everything in its power to assist the liberal views which he had heard enunciated that evening.

Mr. Christopher Heath, Mr. Francis Mason, and Dr. Orphoot were then proposed as members of the Association.

Mr. Napier introduced a discussion on the Manifestations of Syphilis in the Teeth. The debate was of a very animated character, Mr. Jonathan Hutchinson, Mr. Salter, Dr. Billing, Mr. F. Mason, Mr. Coleman, Mr. Hamilton Cartwright, and others taking part in it. As the hour was growing late, the discussion was adjourned until Wednes-

day, 24th May, when Mr. Coleman will read a paper on the Pathology of one variety of Dental Cyst, should the discussion on syphilitic teeth be finished in time for him to do so.

We are convinced that this Society will do much good, and shall continue to take a warm interest in its proceedings. It will surprise many of our older readers, and be a source of gratification to more, to find that Dr. Billing was present at the meeting and took part in the debate. We should be afraid to make a guess at the age of our most esteemed *confrère*, but may state that he took his degree of M.D. Oxon. as far back as 1818.

Correspondence.

"Audi alteram partem."

SUBCUTANEOUS INJECTION OF QUININE.

To the Editor of THE LANCET.

SIR,—I have read with much interest a paper in your issue of the 8th inst., by Surgeon-Major G. Y. Hunter, on the hypodermic use of quinine.

I have had considerable experience of this mode of treatment at Lahore, where malarious fever in the intermittent form is extremely prevalent, but being on leave in England at present, and having neither books nor papers to refer to, I desire simply to state a few facts from memory, which appear to me to have a practical bearing on the subject.

Many years ago I tried the hypodermic method, dissolving the quinine in water and sulphuric acid. The result was a slough in almost every instance, and one case died of tetanus. I consequently gave up the practice, and trusted to quinine by the mouth, or, where this failed from vomiting or disgust for the remedy, by the rectum, which latter mode, especially in children, I found to answer admirably.

The fever at Lahore, however, in 1872 became of so obstinate a type that I was glad to give another trial to a mode of administration which others had found to have a more lasting effect.

About this time I met with Dr. Turnbull, of Her Majesty's service, then Deputy Inspector-General of Hospitals at Rawulpindee, who informed me that Dr. Aitchison, the civil surgeon of that place, had used the hypodermic method with great success amongst the prisoners in the gaol, and that he was accustomed to dissolve the quinine in tartaric acid, the prescription being as follows:—Sulphate of quinine, one drachm; tartaric acid, half a drachm; distilled water to three fluid drachms. Fifteen minims of this obviously contain five grains of quinine. The solution congeals in cold weather, but is certainly fluid at 65° or 70° F. I have used this formula in a great number of cases (I am certainly within the mark if I say one hundred), amongst which I have not had any cases of tetanus, or any serious result due to the injection.

I have tried dissolving the quinine in citric acid, but have not found this so good a solvent as tartaric.

I have latterly used a syringe invented by Mayer and Meltzer, of which the point is steel, and the orifice is on the side of the stem, about one-sixth of an inch from the point. The whole stem or nozzle, which is about one inch long, is introduced, as far as it will go, through the skin into the subcutaneous tissue. I generally select a place on the back of the left forearm, where no veins can be brought into view by grasping the limb firmly above; on withdrawing the instrument, I place my finger over the small puncture left in the skin, and hold it there for about half a minute. Most commonly none of the solution escapes, and often not one drop of blood. If there is any bleeding, I apply a small pledget of cotton. I inject from fifteen to twenty minims of the solution in an adult; in one case of a child under a year old I used seven minims with good effect.

The effect of one such injection has, in the majority of instances, been very decided, no paroxysm following the next day, though often occurring in a mitigated form the same day; afterwards there has generally been an immunity from fever for weeks or months, such as a much larger dose by the mouth, even when frequently repeated, has usually failed to produce.

A certain amount of inflammation has almost always followed—sometimes more, sometimes less, requiring rest of the limb and cold applications for three or four days; but in a very few instances only has there been a slough or ulcer. I can call to mind at this moment two cases in which an abscess formed, and three cases in which there was a small superficial slough, besides a very few the details of which I do not distinctly remember.

A hard knot and some neuralgic pains often remain in the part for a considerable time afterwards.

I have never known the hypodermic method produce ringing in the ears, deafness, or other unpleasant effects of quinine taken by the mouth.

I agree with Dr. Hunter that this mode of administering quinine ought, as a rule, to be used only in those instances in which the ordinary method is inapplicable, and hence I have kept it for such cases as the following:—1st. Those in which quinine by the mouth has failed to stop the fever. 2nd. Those in which there is great irritability of stomach or great disgust for the remedy. 3rd. Those in which the fever, though controlled by quinine in the ordinary method, yet requires large and repeated doses. 4th. Those in which the effect on the head or nervous irritability produced by the drug is distressing. 5th. Cases in which death seemed to be imminent, and in which it was necessary to produce a decided and rapid effect upon the fever.

Of the five cases mentioned, in which either suppuration or a slough occurred, the first was a strong, well-nourished man, in whom more blood than usual escaped from the puncture. I believe that in this case I wounded a small vein, and that the effused blood produced an abscess, but I did not see the case after suppuration set in. The second was also a strong man, of healthy constitution. I had injected him before in the forearm with marked benefit, and on this occasion he requested that it might be done again. I now injected the back of the upper arm. The point of the syringe seemed to catch the attached surface of the skin when introduced to the full distance, and as I pressed the piston down a small blue mark became apparent on the surface, as if the fluid had penetrated the tissue of the true skin. In the third and fourth cases, both very thin forearms, the same thing happened, and a slough formed at the discoloured spot. One of these cases turned out to be typhoid fever, of which the patient died on the eighteenth day, about fourteen days after the injection. In the fifth case I do not remember either effusion of blood or the blue mark, but the patient was *in extremis* at the time, much in the condition of a person in the third stage of cholera. She had no return of fever after the injection, and made a good recovery, but a small abscess formed at the spot, and some dead cellular tissue was discharged. Possibly the very feeble condition of the patient was the reason of this.

These five instances are, to the best of my recollection, typical of all the cases that have resulted in ulcer or abscess in my practice since I began the tartaric solution, and represent all the causes that I have been able to trace. I have used this method amongst pauper lunatics, who have not suffered from it more than persons of sounder constitution.

I think it is important that no oil should be used, either for the nozzle of the syringe or the washer of the piston. The washer requires to be frequently changed if the instrument is much used, as it rapidly disintegrates, and of course the syringe must be kept scrupulously clean. The solution should be filtered and fresh, and care should be taken not to inject any air.

The accident of touching the under surface of the skin with the point of the instrument has occurred to me in some cases, in which I have been most anxious not to produce a scar on the arm, and I have sometimes thought there might perhaps have been no slough if the orifice of the syringe had been carefully directed towards the side away from the skin.

If these precautions be observed, and visible veins avoided, I believe that the inconveniences attending the hypodermic method would be reduced to a minimum.

Your obedient servant,

J. B. SCRIVEN, Civil Surgeon of Lahore.

St. James's-square, S.W., April 11th, 1876.

ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

To the Editor of THE LANCET.

SIR,—The discussion attending the late proposed meeting of the above Association at Brighton has brought prominently to my mind a question which for a long time I have been in the habit of pondering over, but could never get a satisfactory answer from any of my personal friends: What is the use, in a scientific point of view, of these annual meetings? And I now take the liberty of asking this question through the medium of your columns, if any member of the Association would kindly give me an answer: What good have such meetings ever done, or what good are they ever likely to do?

The objects of the annual meetings of the British Association, the Social Science, and other kindred societies, are clear and well-defined: to diffuse knowledge and information amongst the public, and to attract other students in the respective fields of inquiry.

The British Medical Association has no such objects. Their meetings are strictly professional, and can never be required for imparting knowledge amongst the laity; though, I suppose, according to the views of the *British Medical Journal*, at no distant date we may expect to have these meetings enlivened, if not enlightened, by the presence of lady-practitioners.

Now, it would seem to me that for all purposes of receiving and imparting knowledge the medical profession are in a peculiarly favourable position. In fact, such means abound in all parts of the country. We have a large number of well-conducted journals with intelligent editors, willing and anxious at all times to throw open their columns to any one who has any new theory or mode of treatment to propose, or any interesting cases to narrate, which are extensively circulated and read by the profession. There are also in all parts of the kingdom medical schools with their professors and lecturers, who devote their time to the specialties of their respective departments, not to mention the numerous medical societies in London and the provincial towns, many with special objects, where medical subjects are constantly undergoing discussion by the able and intelligent of the profession.

Even supposing that the addresses were invariably delivered by first-class men, it would be difficult, under the circumstances, to conceive what real good could be derived from such meetings; but as the facts are, as a rule I believe it is pretty generally acknowledged, the reverse, and the addresses are placed in the hands of gentlemen who are only heard of on these occasions—the mere nominees of an overbearing committee;—it would seem to me that the profession at Brighton are quite justified in withholding their co-operation from all such gatherings until it can be shown that some solid advantages to the profession may be reasonably expected to accrue from them.

I am, Sir, your obedient servant,

Brighton, April 22nd, 1876. WILLIAM KEBBELL, M.D.

DYSIDROSIS: CHEIRO-POMPHOLYX.

To the Editor of THE LANCET.

SIR,—I have no desire, even if you would give me space for the purpose, to discuss the matter of cheiro-pompholyx in your columns further than to state:—

1. That whatever Mr. Hutchinson may have said in clinical lectures or the like upon the subject, it is certain that he did not actually publish (i.e., print) anything about it until 1876.

2. That the publication in your columns of any extracts from, or of any lecture delivered by Mr. Hutchinson in 1871—which I presume will appear in this week's LANCET—will not disprove the fact that I have anticipated him by three years in describing in print, and under the term "dysidrosis," the particular eruption which he has denominated "cheiro-pompholyx." Of course long before 1873, and certainly in 1871, dysidrosis was known and taught as a distinct disease by myself at University College. *But our dispute can only be determined by published work.*

3. That our concurrence in the employment of similar expressions relative to the character of the disease is not "another of the many instances in which two independent observers, looking at the same facts, come to nearly the same conclusions, and describe them in nearly the same words," for the sufficient reason that Mr. Hutchinson and I differ entirely as to the pathology of the disease.

4. If the bullæ of the disease be produced by the effusion of serum into the skin, as asserted by Mr. Hutchinson, then (as the disease is not eczema), surely cheiro-pompholyx is a pemphigus, and pemphigus of the hands (and feet) has been acknowledged and described in almost every text-book on skin disease for many a year past, and there is no novelty about Mr. Hutchinson's statements. But,

5. If, as I assert (and I know that this will be confirmed by future observers), the disease begins in the sweat apparatus, and in the early stage of the disease the distension of the sweat-follicles can be plainly traced, then Mr. Hutchinson has held erroneous views of his so-called "cheiro-pompholyx" from the time that his attention was first directed to it.

In conclusion, I desire to say that I did not place Mr. Hutchinson's and my own remarks side by side in parallel columns in order to prove plagiarism on his part, but merely, as I distinctly stated, to demonstrate that we were really dealing in print with the same disease—myself in 1873, and he in 1876.

It may be as well to add that "dysidrosis" is commonly diagnosed as eczema, and especially "gouty" eczema.

I am, Sir, your obedient servant,

TILBURY FOX.

Harley-street, Cavendish-square, W., April 25th, 1876.

To the Editor of THE LANCET.

SIR,—The eruption for the honour and priority of giving a name to which Mr. Hutchinson and Dr. Tilbury Fox are contending has been familiar to me for the last thirty years, as I should imagine it must have been to very many practitioners.

Of course, when observers so competent connect the eruption with nervous disorder, it must frequently be so; but in all the cases I have seen it has not had this connexion, but has occurred in markedly gouty constitutions, and I looked on it as a local outcome of a gouty seizure as clearly as any of the more ordinary joint affections.

I am at present attending a lady who has since 1843 had repeated attacks both of the sago-grain and bullous forms, the eruption that year having been of the latter. In her case there has been frequent recurrence, but no periodicity and no nervous depression, except such as any irritating external ailment will cause; and she has the credit of having, many years ago, given the name of "pearl sago" to the minor eruption, as, indeed, it would be difficult for any one to avoid doing who wished to describe it either to a friend or doctor.

I confess I cannot at present regard it as a dysidrosis; and as it attacks the feet as well as the hands, "cheiro" is not clinically correct.

I am, Sir, your obedient servant,

Ainslie-place, Edinburgh, April 22nd. WM. CUMMING.

P.S.—I should add, that none of my patients have "perspired too freely," but have rather commented on the dryness of the skin.

DENTAL ANÆSTHETICS AND HEART DISEASE.

To the Editor of THE LANCET.

SIR,—A patient who suffers from organic disease of the heart came to me last week and said she was not so well, that she had been a good deal shaken by a prolonged dental operation a few days previously, on which occasion she had eight teeth extracted at one sitting with "the gas," and that there had been some difficulty in bringing her round. I should say that this patient has had rheumatic fever more than once, and that there is a loud, harsh murmur heard all over the precordia; in brief, she has the physical signs of both aortic and mitral obstruction broadly characterised. Her pulse on Saturday was 144.

I have no intention of assuming that the prolonged administration of the nitrous oxide and the extraction of the

eight teeth at the one sitting were wrong in this case, because I have no practical knowledge whatever of the use of this gas, and because I believe the operation and the administration of the anæsthetic were undertaken by persons than whom there are none more capable in London. But I am anxious, *apropos* of this case, to ask a few questions, and it seems to me to be of considerable interest to every member of our profession that these questions should receive clear and definite answers.

1st. Are we or are we not to believe that the existence of great obstruction to the circulation in the form of valvular disease of the heart, such as I have described, counter-indicates—wholly or partially—the use of anæsthetics?

2nd. If the preceding question be answered in the affirmative with regard to anæsthetics generally, are we to believe that nitrous oxide is, in these cases, an exception to the general rule?

3rd. If the existence of cardiac disease is a counter-indication of the use of anæsthetics, do dentists adopt any means of ascertaining whether patients have or have not heart disease before administering them?

4th. If they do adopt any such means, what are they? and are they sufficient?

The patient in question assures me that, although three gentlemen were present, feeling the pulse was the only measure adopted to ascertain the condition of the organs of circulation.

5th. If dentists do not adopt any trustworthy measures for ascertaining the existence or non-existence of cardiac disease before administering anæsthetics, ought they not to do so?

I must confess I heard the statement of the patient to whom I have drawn attention with mingled feelings. My first feeling was one of admiration of the nitrous oxide as an anæsthetic. Here was a triumph! A person with a very grave form of heart disease is kept insensible for a period long enough to extract eight teeth, and is alive to tell the tale! But then I ask myself, Might she not have died? and *then* what would have been said about the administration of the anæsthetic without first ascertaining whether heart disease did or did not exist?

In connexion with this subject, I observe with satisfaction that a society has been formed which is to consist exclusively of qualified medical men who practise dentistry. As the employment of anæsthetics in dental operations is now so universal, it is of the greatest importance that those who undertake these operations should not only possess a certain amount of mechanical dexterity, but that they should also have undergone such a training in the principles of medicine and in the diagnosis of disease as shall render them competent to detect the existence of disease in which the production of anæsthesia is unsafe or hazardous. No unqualified person should be permitted to make use of anæsthetic agents, although I am assured on good authority that in much of the advertised "painless dentistry" the administration of "the gas" is entrusted sometimes to the dentist's wife! and sometimes to the shop-boy!!

I am, Sir, your obedient servant,

I. BURNEY YEO, M.D.

Hertford-street, Mayfair, April 12th, 1876.

"THE TREATMENT OF TETANUS BY NERVE-STRETCHING."

To the Editor of THE LANCET.

SIR,—I have read Mr. Callender's remarks as set forth in your journal of the 22nd inst., page 576, with great interest. In turning the subject over in one's mind, the idea has suggested itself that this treatment might be adopted with some prospect of success in those horrid cases of refractory sciatica met with from time to time, cases which successfully resist the influence both of the doctors and physic, however influential the one or potent the other may be. The pain of the operation would be as nothing in comparison with that endured during the paroxysmal attacks so frequent in such cases. I am not sure that this plan of treatment has been before suggested; if not, I feel sure that the hopeless nature of such cases would fully justify the trial. I am Sir, your obedient servant,

THOMAS CHAMBERS, F.R.C.P. Edin.

Chester-square, April 26th, 1876.

THE SANITARY CONDITION OF RUGBY SCHOOL.

To the Editor of THE LANCET.

SIR,—I am instructed by the Local Board, with reference to the Report by your Commissioner recently published in your paper and copied into others, that "the sewers are badly laid and ill-ventilated," to give their emphatic denial to such statement, as generally applicable to the sewers of the Local Board, and especially as regards the sewers in the neighbourhood of the school and boarding-houses. I am to add that the Board are extending the ventilation of the sewers, and constructing a flushing-chamber at the terminals of every sewer, and flushing has for a considerable time been systematically carried on; also, that the water supply is from the Board's own works, and not by a company, and the Board are endeavouring to arrange for a constant supply.

I am, Sir, your obedient servant,

Rugby, April 26th, 1876. THEODORE M. WRATISLAW, Clerk.

*** If the drains are not "ill ventilated," why is the Board extending the ventilation of the sewers? The necessity for vigorous flushing is part proof of our statement that the drains are "badly laid." The death-rate of Rugby last year was exceedingly high for a small agricultural town; the cause is to be found in defective drainage and an intermittent water-supply.—ED. L.

Obituary.

JOHN HIGGINBOTTOM, F.R.S., F.R.C.S. Eng.

MR. HIGGINBOTTOM died at his residence, Gill-street, Nottingham, on Friday, the 7th of April, at the ripe age of eighty-seven, almost the father of the medical profession. For nearly seventy years he was in professional harness, which he did not throw off until compelled by physical weakness, about three or four years since. From this time there was a gradual but almost imperceptible failure of vital power, unattended by disease, until he quietly passed away, retaining his mental faculties to the last.

Mr. Higginbottom was born at Ashton-under-Lyne, in Lancashire, on the 14th of June, 1788, where his father practised as a solicitor, being much respected, and acquiring the appellation, "the honest lawyer." When about seven years of age he was sent to a school kept by an unbeneficed clergyman at Ollerton, in Cheshire, whence he was removed to a school in his native town, the master of which believed too much in the efficacy of the ferule as a means of imparting knowledge. This severity had a bad effect upon a young, delicate, and nervous boy, and prevented him making progress, so he was eventually placed at a school in Chester kept by Mr. Segismund Stolterforth, whom he always regarded and esteemed. Upon leaving this school he was placed in his father's office, his parents having determined that he and his two brothers should follow a profession. Mr. Higginbottom much disliked the confinement at the desk, and as often as he could he stole away to enjoy his favourite amusement—angling; a love for the sport continuing through life. He enjoyed all its literature, especially that of the "gentle Isaac." Mr. Higginbottom was of opinion that a real angler was born such: "piscator nascitur, non fit." He had, too, a taste for drawing, which he assiduously cultivated when young and practised through life. This acquirement was of great service to him in the profession he ultimately adopted, and also in his scientific investigations, as well as a source of delight and solace.

Finding he had no taste for law, his parents suggested medicine and surgery for his future study. He consented to be apprenticed to an uncle who was a surgeon at Stockport, an eccentric, whimsical, and tyrannical bachelor. The medical student of to-day who passes from school to college, and learns his pharmacy in a comfortable class-room, has no conception of the hardships of an apprentice sixty years ago. Alluding to this, Mr. Higginbottom in

some notes says: "I had to groom the horse, take it to water night and morning, sweep out the surgery daily, clean all the shop bottles and shelves every third morning, make all the preparations, powder barks and cantharides, and pass them through a fine sieve. I had to make all ointments and plasters, and keep a large stock of pills ready. As there was no fire in the surgery during the coldest weather, my hands were much chapped." In after-life Mr. Higginbottom did not regret the severe and even painful discipline of early days. At the completion of his apprenticeship Mr. Higginbottom decided upon Edinburgh as the place of his future studies. He arrived there Oct. 18th, 1809. Having finished the course there, he became assistant to Mr. Attenburrow of Nottingham, who had a very large practice, and was one of the surgeons to the General Hospital. In this practice, which extended to all the surrounding villages, there was plenty of work, involving from ten to twenty miles on horseback before breakfast almost daily, the rest of the day's work being done on foot. In addition to these duties he attended daily at the General Hospital as a dresser. Here he formed an intimate and lasting friendship with Mr. Henry Corrie, brother of the late Bishop of Calcutta, and of George Corrie, Vice-Chancellor of Cambridge University. Mr. Higginbottom remained for two years in this situation, and on his leaving attended lectures by Sir Astley Cooper and others in London. He then returned to Nottingham and commenced practice; and shortly afterwards, on June 25th, 1813, he married Ann, daughter of Robert Hall, Esq., of Basford Hall (the inventor of bleaching), and sister of the distinguished Dr. Marshall Hall. This intimate connexion with such a talented family had great influence on his future career. His success in practice was immediate and rapid, so much so that for twelve years he did not take a day's holiday.

In 1826 Mr. Higginbottom first became known to the profession by the publication of his essay on "Lunar Caustic." The last edition of this monograph was published in 1865, and is still a standard and unique work on the use of nitrate of silver. He subsequently published his observations on several important subjects, the chief of which were "Syncope Senilis," "On Alcoholic Stimulants," "Alcoholic Rheumatism and its Remedy," and on "Ipecacuanha in Emetic Doses in Exhaustive Diseases." From the time of his apprenticeship Mr. Higginbottom had a strong personal conviction of the moral and physical danger attending the use of alcoholic stimulants in any form, and he made a vow not to partake of them. This vow he never broke, and after being in practice some years public attention was aroused to the evils of drunkenness, and temperance and teetotal societies were formed. Mr. Higginbottom, with his usual faithfulness to conviction, threw himself heartily into the work, and considered more fully the subject until by experience he was convinced that alcohol was not necessary in the treatment of disease. The public avowal of these convictions told considerably upon his practice, and depressed his spirits. His brother-in-law, Dr. Marshall Hall, perceiving this, suggested to him to continue some observations he had been making on the British triton and the tadpole of the frog. With his natural ardour and perseverance Mr. Higginbottom adopted the suggestion, and for six years closely observed their habits, and made experiments on the physiological points in dispute. The results of these observations were communicated in several papers read before the Royal Society, for which he was rewarded by the distinguished honour of being elected a fellow.

In spite of his unpopular opinions about alcohol, Mr. Higginbottom retained a large practice, and was respected and revered by his patients. For two generations his tall figure and handsome and benevolent face were as well known in Nottingham as the market-place, and his name as familiar "as household words."

Although Mr. Higginbottom attained the great age of eighty-seven, he had not a robust constitution, but great attention to the laws of health, and (in his opinion) abstinence from alcohol, enabled him to ward off disease which threatened him.

Mr. Higginbottom was a noble type of the general practitioner; loving his profession, he regulated his conduct by the strictest code of honour, caring little for pecuniary emolument.

His intellectual powers were reflective and observant rather than acute and subtle, whilst his moral and social characteristics were those of unselfish kindliness, liberality, sincerity, cheerfulness, simplicity, and quiet humour. To these high qualities was superadded sincere and earnest piety, which influenced every thought and action, compelling from all who intimately knew him the homage of respect, reverence, and love.

SIR WILLIAM WILDE, M.D., F.R.C.S.I.

ALTHOUGH it was apparent for some months that the health of this most eminent member of our profession, and still more famous writer, was failing, the announcement of his death last Wednesday week created a profound sensation throughout Ireland.

William Robert Wills Wilde was born in 1815, at Castlerea, County Roscommon, where his father had practised medicine for many years. The family originally belonged to Durham, and Sir William's mother was of pure Celtic blood. Having been apprenticed to Professor Colles in 1832, he soon gained the confidence of the surgeons of Dr. Steevens's Hospital, and was elected resident pupil, an office he held for over three years. He was nominated curator of the museum of the same institution on his obtaining the diploma of the College of Surgeons in 1837. He left Dublin, however, for a year as medical attendant to an invalid, and with him sailed to Madeira and along the Mediterranean coasts. His "Narrative" of these voyages displayed so much erudition and excellent literary style that he sold the copyright to a Dublin publisher for £250. Having determined upon becoming a specialist in ophthalmic and aural surgery, Mr. Wilde studied with the greatest zeal at Moorfields, and afterwards at Berlin and Vienna, and settled in Dublin in 1841. He soon founded a hospital for diseases of the eye and ear, which is now located in Lincoln-place, in the building formerly occupied by the Park-street School of Medicine. In this famous institution, with which Messrs. Wilson and Rainsford are also connected, many hundreds of Irish, English, and American students have been educated. There is a very general feeling that its name, "St. Mark's," should be altered to "Wilde's Hospital," in memory of its famous and benevolent founder. In no city in the world have medical men been more active in establishing institutions for the sick poor; for example, Steevens's, Dun's, the Meath, the Lock, the City of Dublin, and St. Vincent's Hospitals were founded by Dublin surgeons.

Dr. Wilde's private practice at once became extensive; yet, as it did not occupy his evenings, he found time for writings of the most varied and voluminous character. His "Aural Surgery, 1853," was long the standard work, and it is quite worthy of being edited by some specialist who would embody in it the results of more modern research. His essays on "Epidemic Ophthalmia," "Malformations of the Organs of Sight," and many other papers, appeared in the *Dublin Quarterly Journal of Medicine*, of which he became editor in 1847. In its pages and in those of the *Dublin University Magazine* will be found most admirable memoirs of Molyneux, Mosse, M'Bride, O'Halloran, and other eminent physicians of the past two centuries. His professional work which will endure most is, however, the Medical Reports of the Census of 1841, 1851, 1861, and 1871, the last of which is only partly published. On his return from Vienna in 1841, he put together notes which he had made upon the institutions of Austria, and their publication established him at once in the first rank of statisticians, and obtained for him the offer of the Medical Commissionership. In the first of these reports, covering 600 folio pages, the statistics of disease then existing are admirably elaborated, and moreover a most learned account is given of the pestilences which had invaded Ireland for several centuries previously. It was especially for his statistical services that he received the honour of knighthood at the hands of Lord Carlisle, Lord Lieutenant, in 1864. Besides the works already mentioned, Sir W. Wilde wrote "Irish Popular Superstitions," "Closing Years of Dean Swift," "Lough Corrib," and the "Beauties of the Boyne and Blackwater." Those who attended the Boyne excursion of the British Medical Association in 1867 will remember with what erudition, tact, and energy he acted as cicerone, an office he previously filled for the historian Macaulay when preparing his account

of the famous battle. The undertaking to which he perhaps devoted most zeal was the preparation of the Catalogue of the Antiquities of the Royal Irish Academy—an undertaking which occupied his leisure moments for many years, and for which he never would receive the smallest remuneration. That body, however, presented him with the Cunningham medal. The first part was prepared with surprising rapidity, having been issued some four months after it was begun.

Among the honours and distinctions conferred on the subject of this brief memoir may be mentioned the post of Surgeon-Oculist to the Queen in Ireland, then first created, the honorary degrees of the Universities of Dublin and of Upsala, the order of the Polar Star of Sweden, and the Presidency of the Ethnological Section of the British Association in 1857 and 1874. On the former occasion he conducted the excursionists to the Island of Arran. When that learned body meets again in Dublin (which is to be hoped will be in 1878), death will have created no greater void than that caused by the untimely event we now chronicle. Sir W. Wilde's town house, 1, Merrion-square North, has for a quarter of a century been the scene of almost weekly reunions of the leading artists and littérateurs of Dublin, and those of foreign countries who happened to visit that city.

Lady Wilde (who, under the name of "Speranza," has acquired poetic fame), and two sons, both of whom have won remarkable University honours, survive the deceased gentleman. Although it was his will that his funeral should be unostentatiously conducted at Moytura, County Mayo, if he died at his country estate, or at Mount Jerome if he died in Dublin, the obsequies on last Saturday were attended by a vast concourse, including nearly all the leading citizens and members of his own profession in Dublin.

DONALD DEWAR, M.D.

DR. DEWAR was born at Tarbet Loch Lomond-side in 1825. He studied at the University of Glasgow, and took the degree of M.D. there in 1853. He then served in the Crimea, and returned to practice in Glasgow in 1857. He was one of the surgeons to the Royal Infirmary, and examiner in surgery at the Faculty of Physicians and Surgeons. Cut off in the prime of life, he had not gathered the professional laurels which no doubt lay in his path; but he was distinguished as a sound and skilful surgeon and an expert operator. He was a great favourite with his professional brethren, who will long miss his genial presence at their social gatherings; and he was also much beloved and trusted by his patients. Dr. Dewar was known not only in medical circles, but also as a naturalist. His knowledge of ornithology was very extensive, and a large collection of birds and eggs remains as the result of his diligence in this department of science. He died at Glasgow on the 18th March, at the early age of fifty.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT a meeting of the College on Thursday evening last, the following gentlemen were nominated by the Council, and proposed to the College for election to the Fellowship:—John Anthony, M.D., Birmingham; William Henry Paine, M.D., Stroud; John O'Brien Milner Barry, M.D., Tunbridge Wells; George Bernard Brodie, M.D., Curzon-street, W.; Frederic Bateman, M.D., Norwich; William Ainslie Hollis, M.D., Brighton; John Cavafy, M.D., Upper Berkeley-street, W.; William Bathurst Woodman, M.D., Christopher-street, E.C.; Thomas Lauder Brunton, M.D., Somerset-street, W.; Isaac Burney Yeo, M.D., Hertford-street, W.

FACTORY ACCIDENTS.—The Inspectors of Factories state that in the half-year ending with October last there were reported to them, under the Factory and Workshop Act, accidents by which 165 persons were killed, 489 had to submit to amputation of the whole or part of a limb, 274 sustained fractures, 243 suffered injuries to the head or face, and 2136 were otherwise injured to an extent preventing their return to work within forty-eight hours. The total is 165 persons killed and 3142 injured.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

J. T. Butterworth, W. H. Osborne, and A. Harvey, Birmingham; A. B. Calder, W. Richardson, C. R. Illingworth, H. Briggs, O. C. Shaw, and S. J. J. Vander Poel, Edinburgh; W. H. Mason, C. Rhodes, and E. B. Pickersgill, Leeds; W. Rowlands and S. J. Rennie, Liverpool; M. Oppenheim, W. W. Colborne, G. A. George, and S. E. Duncan, University College; H. G. Orlebar, Aberdeen; W. E. Shorland, Bristol; E. Rawson, S. A. Hayman, W. Willes, T. F. Valsey, and H. Blott, St. Bartholomew's Hospital; W. M. Satchell and E. B. Smith, St. George's Hospital; W. C. Jones, G. D. Collins, H. A. Smith, and T. Jackson, Middlesex Hospital; R. H. J. Gardiner and W. R. T. Hawkins, London Hospital; T. H. May, Westminster Hospital; J. Armistead, St. Mary's Hospital; A. M. Harding and T. W. Graves, King's College; H. L. Bates, E. W. Deane, and R. A. Ross, Guy's Hospital; and H. Drinkwater, Newcastle and Edinburgh.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on April 20th:—

Boaton, George Charles, Dinan, France.
Brown, Thomas Lloyd, Brunswick Villa, Camberwell.
Edmunds, Walter, Hampstead.
Gillibrand, William, Standish, Lancashire.
Jolly, Samuel Aird, Tue Brook, Liverpool.
Scatliff, Arthur William, Clapham-common.
Steele, Henry Frederick, Stoke Ferry, Norfolk.
Vachell, Herbert Redwood, Cardiff, South Wales.
Wade, Arthur Breedon, Ryde, Isle of Wight.

The following gentlemen passed the Primary Professional Examination on the same day:—

Gayton, Francis Carter, St. Bartholomew's Hospital.
Tester, Richard Carr, London Hospital.
Thomas, Hugh William, Queen's College, Birmingham.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examination, obtained the degree of Doctor of Medicine on April 21st:—

Brady, George Stewardson, M.R.C.S.E., L.S.A., Sunderland.
Davies, Andrew, M.R.C.S.E., L.S.A., Swansea.
Dixon, Edward Livesey, L.R.C.P.L., M.R.C.S.E., Preston.
Dobie, William, L.R.C.P.Ed., L.R.C.S.Ed., Keighley.
Granville, Joseph Mortimer, L.R.C.P.L., M.R.C.S.E., London.
Millard, William J. Kelson, M.R.C.S., L.M., L.S.A., Brighton.
Miller, George, L.R.C.S.Ed., Edinburgh.
Pearse, Frederick E., M.R.C.P.Ed., M.R.C.S.E., Stow-on-the-Wold.
Penhall, John T., F.R.C.S., L.S.A., St. Leonard's.
Roberts, Branaby, L.K.Q.C.P.I., M.R.C.S.E., L.S.A., Eastbourne.

At the same time James Key, M.A. St. Andrews, received the degrees of M.B. and C.M.

THE Local Government Board have awarded Mr. Wm. H. Arrowsmith, of Darlington, £57 3s. for successful vaccination.

IT would appear from a report by Dr. Sedgwick Saunders presented to the Commissioners of Sewers, that a very large quantity of unsound, putrid tea is circulated in London, some of which is sold for 4½d. per lb. Action will immediately be taken by the Commissioners to stop this disgraceful traffic.

Medical Appointments.

APLIN, A., M.R.C.S.E., has been appointed Assistant Medical Officer to the Notts County Asylum, Sneuton, Nottingham.

BUCK, T. A., M.B., has been elected Honorary Assistant Medical Officer to the Royal Isle of Wight Infirmary.

CORDNER, L. M., L.R.C.S.I., L.K.Q.C.P.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Aughnacloy Dispensary District of the Clogher Union, co. Tyrone, vice Henry.

DAVIES, W. M., M.B., C.M., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the newly-arranged Warboys District of the St. Ives Union, Hunts, and Medical Officer of Health for the Warboys Sub-district of the St. Ives Rural Sanitary District, vice Deane, deceased.

DUFFEY, G. F., M.D., F.K.Q.C.P.I. (Lecturer on Materia Medica in the Carmichael School of Medicine), has been appointed Physician to Mercer's Hospital, Dublin.

EAGER, W., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Superintendent of the Suffolk Lunatic Asylum, Melton, vice Kirkman, resigned. £400 per annum, furnished house, rations, &c.

HAGUE, S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the St. George District of the Parish of St. Giles, Camberwell, vice Chabôt, appointed to the Workhouse Infirmary.

HENRY, R., M.D., has been appointed Medical Officer for the Brookborough Dispensary District of the Lisnaskea Union, vice Wilson, deceased.

HODGES, Dr. J. F., Jun., has been appointed Public Analyst for the County of the Town of Carrickfergus, at £20 per annum and the statutable fees for analyses.

HOLDEN, J. F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Kingston-upon-Hull Urban Sanitary District, at £500 per annum.

JEFFERIES, W. R. S., M.D., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Tyrie, Aberdeenshire, vice Farquharson, resigned.

MCKENZIE, G. H., M.B., C.M., Resident Surgeon District Infirmary, Ashton-under-Lyne, has been appointed Senior Medical Assistant at the Gloucester County Asylum, vice Dr. J. A. Philip, appointed Superintendent of the Lincoln Lunatic Hospital.

MACKLIN, T. T., M.B., L.F.P.S.G., has been appointed Medical Officer to the Mission at Lake Nyassa of the East African Mission of the Church of Scotland.

PERRY, Mr. F., has been appointed House-Surgeon to University College Hospital, vice Collyns, appointed Resident Medical Officer to the Atkinson-Morley Convalescent Hospital, Wimbledon.

SAUNDERS, W. H. F., M.R.C.S.E., has been appointed Assistant-House-Surgeon to the Carlisle Dispensary, vice Ross, resigned.

STEPHENSON, S. S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Attendant to the Royal Irish Constabulary at Killough and Ardglass, vice Graham, resigned.

SWAYN-SMITH, C., M.R.C.P.E., M.R.C.S.E., has been appointed an Honorary Surgeon to the Bootle Borough Hospital.

TAYLOR, A. N., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Bovey-Tracey and Ilsington Districts of the Newton Abbot Union, Surgeon to St. John's Cottage Hospital, Medical Officer to the Odd Fellows and Manchester Unity Clubs, and Certifying Factory Surgeon, Bovey-Tracey, vice Haydon, resigned.

THOMSON, Dr. W. A., Junior Assistant Medical Officer of the Brookwood Asylum, has been appointed Assistant Medical Officer of the Kent County Asylum at Chartham, near Canterbury.

WATTERS, G. T. B., M.B., C.M., L.R.C.S.Ed., L.S.A.L., has been appointed House-Surgeon to the Stroud General Hospital.

WEIR, J. B., M.D., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Silverstone District of the Towcester Union, vice Hunt, deceased.

WHITE, P., L.R.C.S.Ed., has been appointed Medical Officer for the Parish of Berrick, Kirkcudbrightshire, vice Weir.

Births, Marriages, and Deaths.

BIRTHS.

CLOUSTON.—On the 18th inst., at Hay, Breconshire, the wife of Charles Stewart Clouston, M.B., of a daughter.

CRAWFORD.—On the 18th inst., at Uddingston, Lanarkshire, the wife of William Crawford, M.D., of a son.

LETT.—On the 17th inst., at Wadingham, Lincolnshire, the wife of Richard Alfred Lett, M.B., of a son.

LEWIS.—On the 23rd inst., at Gordon-square, the wife of Dr. Waller Lewis, of a son.

MACKENZIE.—On the 14th inst., at Rugby, the wife of John Ingleby MacKenzie, M.B., of a daughter.

MAYBERRY.—On the 9th inst., at Shelbourne-street, Kenmare, the wife of Francis G. Mayberry, M.B., prematurely, of a son, still-born.

THOMPSON.—On the 13th inst., at Oakley-square, Camden-town, the wife of Dr. Thompson, of a daughter.

MARRIAGES.

FAIRBANK—SYMPSON.—On the 20th inst., at St. Mary Magdalene's, Lincoln, by the Rev. H. W. Hutton, Rector and Minor Canon of the Cathedral, F. Royston Fairbank, M.D., of Doncaster, to Dora, second daughter of the late T. C. Sympson, Surgeon, of Lincoln, and sister to T. Sympson, F.R.C.S. No cards.

GILLESPIE—PRYCE.—On the 20th inst., at the Parish Church, Hove, Brighton, by the Rev. W. Kelly, John Williams Gillespie, M.D., late of H.M. 34th Fusiliers and Mauritius Civil Service, to Caroline, widow of James Everard Coulthurst Pryce of Bombay, and youngest daughter of the late Robert Ellis, of Lansdowne-crescent, Kensington-park, and St. Michael's-alley, Cornhill.

KENNY—WISEMAN.—On the 21st inst., at St. Peter's Church, Regent-square, London, by the Rev. T. J. Laurence, M.A., Chaplain of Downing College, Cambridge, Courteney Stanhope William Kenny, L.L.B., Fellow of Downing College, and son of William Kenny, J.P., of Ripon, to Emily Gertrude, daughter of William Wood Wiseman, M.R.C.S., of Springstone House, Ossett, Yorkshire.

DEATHS.

CARTE.—On the 19th inst., at Brighton, John Elliott Carte, C.B., Inspector-General of Hospitals.

CLARKE.—On the 8th inst., at Margate, Charles William Clarke, M.R.C.S.E., aged 75.

CORMACK.—On the 21st inst., at Hyères, France, in his 28th year, Dr. J. R. Baillie Cormack, Clinical Assistant at the Hertford British Hospital, eldest son of Sir John Rose Cormack, M.D., of Paris.

ELLIS.—On the 12th inst., at Waterloo, Great Crosby, Edwin Ellis, Surgeon, in practice before 1815, aged 77.

MAULE.—On the 7th inst., at Auchterarder, Perthshire, James Maule, M.D., aged 33.

MORGAN.—On the 16th inst., at Galway, Robert John Morgan, L.R.C.P.Ed., aged 70.

SOUTHAM.—On the 24th inst., at his residence, Oakfield, Pendleton, Manchester, George Southam, F.R.C.S., in his 61st year.

THOMPSON.—On the 16th inst., at Sheffield, Corden Thompson, M.D., aged 81.

TOLSON.—On the 21st ult., at Dunnington, William Tolson, M.R.C.S.E., aged 76.

WOOD.—On the 20th inst., at Ashton-street, Liverpool, John Yorke Wood, M.R.C.S.E., aged 64.

[N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.]

Notes, Short Comments, and Answers to Correspondents.

ON THE ETIOLOGY OF GRAVEL.

NEAR the Vosges, in France, is a watering-place, Cortrexeville, which has long been celebrated for its alkaline springs. It is much frequented by gouty and rheumatic patients, and has been a fine field for observing the effect of the waters upon these complaints. The Inspector, Dr. Debout d'Estrées, has lately read before the Academy of Paris a paper on the Etiology of Gravel. His investigations have extended over 1028 cases suffering from uric gravel: 822 men, 197 women, and 13 children. In 583 cases he was able to trace the principal cause of the malady; in the others, the causes either were many or could not be ascertained. This principal cause was found to be heredity in 191 cases, bad digestion in 160 cases, over-feeding in 101, a sedentary life and absence of exercise in 95, and severe mental disturbance in 35. One example only was of a traumatic kind in a child. The author has found, as to heredity, that the parents of a patient suffering from gravel are much more frequently labouring under gravel than gout, contrary to Sir Henry Thompson's opinion. As for phosphatic gravel, M. Debout divides it into primary phosphatic gravel and secondary or catarrhal. With the first we have phosphate of lime, carbonate of lime, a few lithates, and some alkaline phosphates. With the second we have principally ammoniaco-magnesian phosphates. The author has observed the first kind with anæmic individuals and tubercular patients. Secondary phosphatic gravel may be caused—1st, when the urine has been fermenting before it is voided; 2nd, when alkalies have been too largely taken, or an exclusively vegetable diet has been used. The author has only observed 47 cases of oxalic gravel: 40 men and 7 women; but it should be observed that, in the microscopical examinations undertaken with the urine of patients suffering from lithic gravel, octahedric crystals of oxalic acid were often observed.

Z. Z. Z.—Unless otherwise stated, we believe it to be a month.

A CASE OF RHEUMATIC FEVER TREATED BY SALICIN.

To the Editor of THE LANCET.

SIR,—I have thought it advisable to place the following case on record, as it fully bears out what Dr. Maclagan has said as regards the value of salicin in acute rheumatism.

A member of the same family whom I had under treatment just before was ill for six weeks, and nothing seemed to have any influence in cutting short the natural progress of the disease. Perchloride of iron, alkalies, iodide of potassium and chinchonine, acids, with sedatives, blisters, wrapping in blankets, &c., were tried without any effect; and the case therefore reported, when taken in conjunction with those brought forward by Drs. Maclagan and Broadbent, stands out in very strong contrast.

R. M. A——, female, married, aged forty-five, a person of very delicate constitution and with a feeble pulse, was seized on March 26th, 1876, with stiffness and pains in all the limbs. She was laid up for six weeks twenty years ago with rheumatic fever, and has suffered occasionally since then with slight rheumatic pains. She has always been accustomed to perspire freely on slight exertion, and was advised in consequence after her attack of rheumatic fever to wear flannel. Upon an alkaline and sedative treatment she went on very well till April 5th. She had then severe pains in her legs and arms. Complained of feeling very feverish and thirsty. The tongue was slightly furred; the bowels were inclined to be relaxed; heart-sounds natural. Temperature 101·4°; pulse 108. Ordered ten grains of salicin every four hours. Diet to consist of Savory and Moore's pancreatic cocoa, beef-tea, and milk.

April 6th.—Temperature 102°; pulse 114. Slept very badly; pains very severe, and a good deal of swelling about the left ankle and knee; less pain on right side, more a feeling of stiffness; shoulders exceedingly painful last night, but better this morning; tongue more furred; bowels still inclined to be relaxed; profuse acid perspiration. The powders to be taken every three hours, twenty-five grains of chloral at bedtime, and the left knee and ankle to be wrapped in cotton-wool and covered with oiled silk.

7th.—Temperature 101°; pulse 100. Slept better last night; pains rather less; tongue very coated; bowels moved once, still rather relaxed. To repeat chloral at bedtime.

8th.—Temperature 101·6°; pulse 96. Slept fairly well; pain still in left arm, and hand much swollen; bowels not moved this morning. Hand to be wrapped in cotton-wool.

9th.—Temperature 100·4°; pulse 84. Pains easier; ankle and knee less swollen; tongue much cleaner; no action; much less perspiration. To take two teaspoonfuls of pyretic saline.

10th.—Temperature 100°; pulse 90. Slept well; pains much easier; bowels moved once.

11th.—Temperature 99°; pulse 84. Good night; pains almost gone; tongue nearly clean; no action since yesterday.

12th.—Temperature 98·6°; pulse 84. Free from pain.

15th.—No pain since last entry; is gaining strength.

I remain, Sir, yours &c.,

Kingston-on-Thames, April, 1876. F. P. ATKINSON, M.D.

HOMŒOPATHY.

AT the Faculty of Buda-Pesth (Hungary), a Homœopathic chair has lately been founded, and Dr. Haussmann was elected to fill it. As there was no hall vacant, a building was secured at a rather large rent; but no more than five students could be mustered through the whole half-year, and, as the professor must be paid, it is easy to see to what extent the Faculty is being mulcted by the erection of that chair.

ACONITE AND ACONITINE.

AN essay was lately submitted to the Academy of Medicine of Paris on the above substances by M. Oulmont. Professor Gubler, with some of his colleagues, have reported upon it, and we consider that the opinions contained in the report deserve the attention of pharmacologists of this country. "Although we cannot agree with all the opinions expressed by the author," says the report, "we think his chief proposition quite correct—viz., that the different preparations of aconite are very unequal in their physiological action, and therefore unreliable as therapeutic agents." We are also glad to find that M. Oulmont, assisted by M. Hottot, has ascertained by chemical investigations that the root of the plant yields considerably more of the alkaloid than any other part. It is, therefore, of importance that the usual manner of obtaining the preparations of aconite should be revised.

Dr. Thomson should send his full name and qualifications.

INFECTIVENESS OF CHOLERA.

To the Editor of THE LANCET.

SIR,—Having had a discussion with a friend as to whether cholera is infectious or directly communicable from one person to another, perhaps some of your correspondents would be able to give me some information on the subject, as I am a reader of your valuable journal.

EDWD. C. W. HANNAN, 50th Regt.

Karachi, Scind, March 24th, 1876.

*** Our correspondent will probably thank us if we quote for his information, on the subject of his note, the following authoritative paragraph from the official memorandum of the Local Government Board on "Precautions against the Infection of Cholera," drawn up by the Medical Officer of the Board and of the Privy Council, Mr. John Simon, F.R.S.:—"Happily for mankind, cholera is so little contagious, in the sense in which small-pox and scarlatina are commonly called contagious, that, if reasonable care be taken where it is present, there is scarcely any risk that the disease will spread to persons who nurse and otherwise closely attend upon the sick. But cholera has a certain peculiar infectiveness of its own, which, *where local conditions assist*, can operate with terrible force, and at considerable distances from the sick. It is characteristic of cholera, not only of the disease in its developed and alarming form, but equally of the slightest diarrhœa which the epidemic influence can cause, that all matters which the patient discharges from his stomach and bowels are infective, and that, if they be left without disinfection after they are discharged, their infectiveness during some days gradually grows stronger and stronger. Probably, under ordinary circumstances, the patient has no power of infecting other persons except by means of these discharges; nor any power of infecting even by them, except in so far as particles of them are enabled to taint the food, water, or air, which people consume. Thus, when a case of cholera is imported into any place, the disease is not likely to spread, unless in proportion as it finds, locally open to it, certain facilities for spreading by *indirect infection*. In order rightly to appreciate what these facilities must be, the following considerations have to be borne in mind: First, that any choleraic discharge cast without previous thorough disinfection into any cesspool or drain, or other depository or conduit of filth, infects the excremental matters with which it there mingles, and probably to some extent the effluvia which those matters evolve; secondly, that the infective power of choleraic discharges attaches to whatever bedding, clothing, towels, and like things, have been imbued with them, and renders these things, if not thoroughly disinfected, as capable of spreading the disease in places to which they are sent (for washing or other purposes) as, in like circumstances, the cholera patient himself would be; thirdly, that if, by leakage or soakage from cesspools or drains, or through reckless casting out of slops and wash-water, any taint (however small) of the infective material gets access to wells or other sources of drinking-water, it imparts to enormous volumes of water the power of propagating the disease. When due regard is had to these possibilities of indirect infection, there will be no difficulty in understanding that even a single case of cholera, perhaps of the slightest degree, and perhaps quite unsuspected in its neighbourhood, may, *if local circumstances co-operate*, exert a terribly infective power on considerable masses of population."—ED. L.

THE TREATMENT OF ACUTE ORCHITIS.

To the Editor of THE LANCET.

SIR,—In my recent communication on the above subject there are two errors which require correction.

By a clerical mistake the words "along the track of the cord"—which occur in the original draft of the article, after the instruction to "repeat the hypodermic injection of morphia"—were omitted in the copy sent to you for publication. As the testicle, in my plan of treatment, is firmly strapped directly after an injection of morphia and atropia has been made "beneath the tunica vaginalis," the importance of some specific direction in regard to the subsequent injections, should they be indicated, will be immediately apparent.

In the last paragraph, instead of affirming that "a decided improvement will manifest itself within *three* or *four* hours, I intended to say "within *twenty-four* hours."

With these explanations I submit this plan of treatment to the profession, assured that it will be found more promptly and generally beneficial than any other with which I am acquainted.

Your obedient servant,

EDWARD WARREN, M.D.,

Paris, April 24th, 1876. Late Chief Surgeon, Egyptian Army.

STRANGE DEATH FROM CHLOROFORM.

WE find in the *Lyon Médical* of April 9th the following melancholy story:—A multiparous girl, aged twenty-five, went to the Maternity on the 23rd of March at three in the afternoon. The pains lasted the whole evening and night. On the 24th, at seven in the morning, the waters broke, and the shoulder presented. Chloroform was then administered in order to proceed to version. All this was done under the direction of the sister of charity entrusted with the care of the patients, and she never sent for the house-surgeon or the physician of the hospital. As the patient did not wake after the chloroform inhalation, the house-surgeon was called. He found the pulse thready, the face blue, and the breathing very imperfect. The endeavours to recall the patient to life were unsuccessful, and she died ten minutes after the house-surgeon saw her. Of course no actual scientific explanation could be obtained; but such a case shows the necessity of reform.

Vaccine Lymph.—The Government should, in our opinion, take some steps to stop the diffusion of such publications.

CASE OF DYSPNŒA; OPERATIONS; RECOVERY.

To the Editor of THE LANCET.

SIR,—On the 6th November last, at the Wells Union Workhouse, Amelia C——, a girl seven years of age, when at play with her companions, placed a fragment of walnut-shell in her mouth. While running and laughing, the piece of shell disappeared downwards, and the child's breathing at once became impeded. When first I saw her next day her expression was distressed; the lips were livid; the breathing was quick, laboured, and noisy; and the veins of the neck were turgid. The chest expansion was equally defective on both sides. When the stethoscope was placed over the larynx, the harsh, almost detonating, valve-flapping noise was very loud, and this sound diminished in intensity as the stethoscope passed down the sternum. The swallowing of fluids and of solids was unimpeded and painless.

On the following day my senior, Dr. Livett, and Mr. French, who kindly assisted us in counsel and in action, agreed with me that tracheotomy was called for at once. The chloroform was badly borne; but as soon as the tube was inserted, Mr. French promptly aided respiration by suction and manipulation, so that very shortly the child was breathing with comfort. No foreign body could be detected above or below the opening. The patient was kept in a steamed tent for some days, and made an excellent recovery. As there were no symptoms of laryngeal or other irritation, and as the weather was extremely cold, it was decided not to interfere further at present. I endeavoured to improve the general condition of the little patient, and her altered appearance soon did credit to a more liberal dietary.

On a day early in January I was called to her to find her breathing almost as badly as before the operation. The tube had slipped out, and could not be replaced by the nurse on account of the child's struggles. From observation of the breathing now, and upon a previous occasion when, for the purpose of testing it, the tube had been removed, I thought the foreign body must be in a laryngeal pouch. The patient's timidity put out of the question any laryngoscopic examination.

On the 27th January, with the concurrence and aid of Mr. French and Dr. Livett (the latter of whom administered ether through the cannula), laryngotomy was performed. Having exposed the thyro-hyoid membrane, I incised this sufficiently to allow a curved probe-pointed bistoury to be passed downwards between the vocal cords, and I then cut through the thyroid cartilage carefully in the middle line. The parts were so small that the finger could not now explore the cavity, and I therefore joined the two openings in the windpipe by cutting upwards from the tracheal wound, dividing the isthmus of the thyroid gland and the cricoid cartilage. The bleeding gave but momentary trouble. Some coughing was excited, and then there was vomiting of a quantity of surreptitiously obtained food. Whether these latter facts had anything to do with the result or not I do not know; but the most anxious search failed to discover the offending body, though the parts were amply scrutinised by sight and by touch. The tube was reinserted, and the child was put back to bed in a steamed tent. She never had a bad symptom. In a week the wound was no longer than the tube required, and in a fortnight (it would have been earlier but for the severity of the weather) the patient was playing about the wards.

For reasons immaterial to the study of the case, the tube was not removed until the 27th March, and then there was no apparent obstruction to the breathing when the tracheal opening was covered. In two days no air entered by the wound; breathing was perfectly normal, and the voice as strong as ever. The cough had rather a laryngeal twang, but this was not observable in such vocal efforts as the child could be induced to make.

Here the diagnosis led to a line of treatment, and the treatment led to a cure; nevertheless, the treatment failed to establish the correctness of the diagnosis. Looking to the history of the case, it can hardly be doubted that the swallowed nutshell was the cause of the dyspnœa. The symptoms localised the mischief above the bifurcation of the trachea, and pointed to either direct interference with, or reflex irritation of, the larynx. The œsophagus seemed to be free from obstruction; nothing could be felt about the fauces or epiglottis. After tracheotomy it was proved that the trachea and bronchi were clear, also that no foreign body encroached upon the cavity of the larynx. Yet the laryngeal obstruction to breathing remained. Were we not driven to conclude that a foreign body was lurking in some inaccessible portion of the air-passages, between the tracheal opening and the glottis, not directly impeding the transit of air, but interfering with the working of the muscular apparatus? Where could it be then but in a laryngeal pouch? And yet after the lapse of a few days we might well wonder that nature, protesting by no symptom of inflammation, should tolerate the presence, in such a situation, of such an intruder as a broken and probably jagged nutshell. However, the cause of the dyspnœa, whatever it was, persisted.

Under the "one-portal system" the larynx is a vital organ not lightly to be tampered with; but having robbed it of its vital importance by providing a subsidiary portal to the lungs, there was no danger to life in exploring the larynx by laying it open from top to bottom. This accordingly was done, and the cause of the dyspnœa was removed. What that cause was, how it was removed, and what became of it, are unfortunately subjects for conjecture only; unless, indeed, the experience of the experienced is able and willing to throw some light upon them.

I remain, Sir, yours truly,

Wells, Somersetshire, April, 1876. WM. FAIRBANK, M.B., C.M.

PETTENKOFER.

THIS distinguished physician was lately offered the appointment of Director of the Board of Public Health in Berlin, which post he respectfully declined. King Louis of Bavaria thereupon wrote a most flattering letter to Pettenkofer, conferring upon him the rank of State Councillor. The appointment just named has been given to Dr. Strück, physician to Prince Bismarck.

An Indian Surgeon.—Our correspondent's letter contains somewhat too much personality and poetry.

J. G. should consult his medical attendant.

DEATH CERTIFICATES AND UNQUALIFIED PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—In your issue of April 1st, notice is taken of the want of proper registration of deaths occurring in cases where no medical man, or only an unqualified man, has been in attendance. Such a state of matters is bad enough in England and Wales, where any suspicious circumstance, even the suddenness of a death itself, calls for a coroner's inquest. But in Scotland, where there are no such inquests, matters are still worse, as, unless some circumstance is brought officially before the Procurator Fiscal to indicate that all is not right, even the most sudden deaths are not in any way inquired into in many cases; while in many other cases death takes place after more or less prolonged illness without any medical man being called at all—in fact, death may be the result of actual neglect, yet there is no arrangement by which such neglect will necessarily be brought home to those who are guilty of it.

In St. Kitts, West Indies, previous to 1868, the same state of matters existed; but much good was done by an Act which was passed in that year, requiring a certificate from a medical practitioner as to the cause of death *in every case* previous to burial. For every such certificate the medical men (who were all also paid medical officers of the colony) received 2*l.*; but they were bound in every case where they had not been called before death to make *inquiries on the spot* as to the cause. I often found when in attendance on cases that were being, in my opinion, more or less neglected that the threat of a refusal of a burial certificate in case of death, and the fear of the trouble that would be given by my doing so, had a good effect—this apart from the other good effects of the Act in preventing infanticide and other crimes.

I am inclined to believe that the passing of such a law by the Home Government (including the remuneration for certificates, whether given after attendance or not) would be of great benefit.

I am, Sir, yours faithfully,

W. MUNRO, M.D., C.M.,
Late Medical Officer, St. Kitts, West Indies.

April, 1876.

P.S.—I may say that still-born children could not be buried without a certificate, the words of the Act being "no corpse," &c.

DEGREES IN MEDICINE AT CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—In reply to "Cantabriensis" in your last issue, I may say that it is a matter of little moment whether the root of the whole University system is cut or not, so long as that system is not in accord with the present requirements and legitimate demands of the public and the profession. Some of the best innovations and improvements have cut away the foundations and roots of systems which had remained intact for centuries—e.g., the disestablishment of the Irish Church,—and often with the best and most satisfactory results. A similar resolution is wanted with the University system. It is not adapted to the requirements of the age, and should be remodelled if the Universities are to occupy the national relation that they should to our profession as they do to the clerical.

After going through two or three examinations and a curriculum, any one of them equivalent to that of a University, and acquiring probably twenty years' practice, and the influence in society which are inseparable from it, I imagine that a medical man would hardly require three years' residence at Oxford or Cambridge to turn him into a gentleman. But this argument is beside the question, the main thing being the substitution of learning alone in place of University residence to those registered medical practitioners who are already in the "sere and yellow leaf," and to whom residence means simply ruin.

That the Legislature has placed the whole of the examining bodies, even the Apothecaries' Company and the University of Cambridge, on a common footing is sufficiently apparent by reference to the schedule of bodies authorised under the Medical Act, and by the power possessed by any one of them of putting their graduates or licentiates upon the Medical Register to enjoy equal privileges.

Your obedient servant,

A PROFESSIONAL WORKING BEE.

April, 1876.

REGISTRATION OF SICKNESS.

DR. TAAFFE, medical officer of health for Brighton, in his last Annual Report, says:—

"The movement now on foot for securing the intimation to the officer of health of all cases of infectious disease is one well worthy of support. By that means a knowledge would be obtained of not only every unhealthy locality, but also of every unhealthy street and every unhealthy house where these diseases are fostered and encouraged by sanitary defects. During 1874-5, ninety houses where infectious diseases occurred were inspected in Brighton with the very best results, and in no instance was there any clashing with the interests of private medical practitioners; but, on the other hand, the work was carried on with mutual good feeling between myself and the medical attendants, at the same time the strictest secrecy surrounded all the proceedings; nor was the course adopted objected to on the part of the heads of families, who invariably felt that the officer of health was their friend, and that his interference was for their own and the public good. Incalculable benefit must ensue from the knowledge thus obtained. It is a nice question whether the duty of reporting cases of infectious disease should be imposed upon the heads of families or on the medical attendant, or on both. The settling of this point I leave to the wisdom of the Legislature. At present we only know where to make an inspection after death has occurred, instead of being able to do so during or after recovery from the illness—that is, we lock the stable door after the horse is stolen."

MEDICAL SENATORS.

No less than seven medical men have been elected to the French Senate. M. Testelin, of Lille; M. Claudot (sent by the department of Vosges); M. Espinasse (Tarn); M. Cazalas (Hautes Pyrénées); M. Bonnet (Aix); M. Robin, and M. Littré. The latter studied medicine originally, and was hospital house-physician. The Chamber of Deputies numbers thirty-nine medical men.

H. G. D.—Trübner and Co., Ludgate-hill, for American; G. Street, Cornhill, for Colonial.

DISTRICT NURSING.

To the Editor of THE LANCET.

SIR,—In one of your leading articles of last week you state that "Miss Nightingale's idea of district nurses seems in every respect excellent and worthy of encouragement; but we confess that we do not see the way quite clearly to the successful elaboration of the details."

It might interest some of your readers to know the plan that has been adopted in Northampton. Owing to the kindness and liberality of a benevolent lady, a nurse, who had received a thorough hospital training, has been placed at the disposal of the medical officers of the Royal Victoria Dispensary, and on any case occurring which requires her services, a card such as I enclose is filled up and sent to her. She then visits the patient, and carries out the medical officer's instructions, and is often, in addition, able to give valuable suggestions as to cleanliness, preparation of food, &c. This plan, which has been in operation for the last two years, has been of the greatest assistance, and the nurse's services are gratefully received and highly appreciated by the members of the dispensary, who are for the most part of the labouring artisan class.

Your obedient servant,

W. A. BARR, M.D.,
Senior Surgeon, Royal Victoria Dispensary.

Northampton, April 24th, 1876.

*** Our remarks had reference to the poor of London rather than to the poor of provincial towns. The Northampton scheme as sketched by our correspondent seems very good, and we hope the example set by the Northampton Dispensary will be largely followed. It is customary at some of the London hospitals to have a nurse attached to the maternity department, whose duty it is to perform certain nurse's functions for those of the patients who require any special attention.—ED. L.

A Constant Reader.—Such is not the usual custom, although sometimes done. It would be too much to expect of the busy practitioner that he should in all cases attend gratis.

F.R.C.P. should advertise.

QUININE AS A SPECIFIC IN WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—Allow me to correct the view of Mr. J. Reynolds in THE LANCET of April 8th, of which I am a constant reader, regarding the novelty of his specific treatment of whooping-cough by the administration of disulphate of quinine in full doses, as the quinine has been used in this complaint already a long time in Germany in full doses, from ten up to twenty and even thirty grains per diem, according to the age of the sufferer. This mode of treatment has been suggested by Mr. A. Steffen in the "Jahrbücher für Kinderheilkunde," 4 Jahrg., 2 Heft, p. 227, 1871, and has proved very useful, especially so in the first stage of the cough, just in the same way as Mr. Reynolds ably describes it, and without any bad results, even in very young children. I do not doubt the originality of the treatment with Mr. Reynolds; but I must object to its being considered quite a new one.

Yours faithfully,

Munich, April 24th, 1876. DR. L. POPP.

To the Editor of THE LANCET.

SIR,—When the letter appeared in your journal recommending quinine as a specific in whooping-cough, I had a son, five and a half years old, suffering from that disease. He had had it for two months and a half, and all remedies, including change of air, failed to give relief. The paroxysms were so long and so severe that I was glad to hear of anything likely to relieve him. I at once commenced to give him three grains of quinine every three hours, repeating it immediately when vomited. He took in four days 107 grains of quinine, and rejected very little. At the end of this time it failed to produce the slightest benefit, so I gave it up as useless.

Yours &c.,

Mold, April, 1876. M.R.C.S., &c.

BRITISH MEDICAL ASSOCIATION.

To the Editor of THE LANCET.

SIR,—May I give you some facts with regard to the visit of the British Medical Association to Sheffield, which will correct the impression given by your article on the subject last Saturday.

The meeting was called by the local members of the Council of the Yorkshire Branch on a very short notice, and the time fixed for the middle of the afternoon, to suit the convenience of the country medical men. It was known that the time was an inconvenient one for the Sheffield medical men.

You will be glad to hear that the movement has been most heartily received by over 70 of the medical men in the borough of Sheffield, and that more than £700 has been subscribed by them to the guarantee fund. The invitation has been signed by 130 medical men, 98 of whom signed before it was sent to London.

Of the working staff of each of the three hospitals and of the lecturers at the School of Medicine, two only refused to join in the movement, and I can most truly say that the response to the canvass has been most cordial and hearty.

Another proof of the local interest in the British Medical Association is the fact that a large number of local medical men have during the last month joined the Association.

I am, Sir, yours faithfully,

ARTHUR JACKSON, *Secretary pro tem.*

School of Medicine, Sheffield, April 25th, 1876.

*** We publish our correspondent's letter; but it does not alter the statement of facts made by us last week.—ED. L.

SIR WILLIAM WILDE'S SUCCESSOR.

OUR Dublin correspondent says:—Drs. Jacob and Wilson are the two gentlemen from whom Wilde's successor as Surgeon-Oculist to the Queen is likely to be selected.

TREATMENT OF RHEUMATISM.

THE following *résumé* of 14 cases of acute rheumatism treated in the Boston City Hospital is given in the last number of the *Medical and Surgical Journal* of that town by Dr. Hall Curtis:—

1. No effect from salicylic acid.
2. Alkalies for a month; then acid, eight doses, with relief.
3. Alkalies for twenty days without relief; acid in one day gave relief.
4. Acid for seven days; patient well.
5. Alkalies two days; acid seven days with entire relief.
6. Relief after four doses of acid; this was continued four days. Recovery.
7. Acid three days without relief. Followed by tincture of chloride of iron for fifteen days. Recovery.
8. Alkalies gave relief in four days. Recurrence. Acid given four days with entire relief.
9. Acid three days; no relief. Alkalies for twelve days. Recovery.
10. Acid seven days with entire relief.
11. Acid refused by stomach. Alkalies during eleven days with relief.
12. Acid for nine days. Complete relief after the first four days.
13. Acid five days with relief. Discharged, well, in seven days.
14. Acid seven days; complete relief in three days.

Except in one or two instances, the salicylic acid was given in wafers.

Mr. P. Bridgeford, (Sheffield.)—We do not know the name and address of any individual professing to perform such cures, and we do not believe in professions of the kind.

PATENT FOOD LABELS.

To the Editor of THE LANCET.

SIR,—I beg to say that, in accordance with the article in THE LANCET of April 8th, entitled "Patent Foods," hereafter every tin of the milk food will have a label pasted on it, stating specifically that it contains milk, wheat, and sugar, and containing no other ingredient whatever.

I am, Sir, yours truly,

Barbican, London, April 12th, 1876. HENRI NESTLÉ.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. G. Johnson, London; Prof. Buchanan, Glasgow; Dr. W. Sedgwick Saunders, London; Dr. Burney Yeo, London; Dr. Tilbury Fox, London; Dr. Chambers, London; Dr. Kebbell, Brighton; Dr. Levenstein, Berlin; Dr. Tatham, Salford; Messrs. Elkington and Co., London; Dr. Fothergill, London; Dr. Cory, London; Mr. Saville, Leeds; Mr. Waller, Calcutta; Dr. Beales, Congleton; Dr. Carpenter, London; Mrs. Baines, London; Dr. Duffey, Dublin; Mr. Cumming, Edinburgh; Dr. Atkinson, Kingston; Dr. Barr, Northampton; Mr. Murray, Camberwell; Mr. O'Hanlon, Manchester; Mr. Penhall, St. Leonard's; Mr. Franklin, Leicester; Mr. Kesteven, Holloway; Dr. Gramshaw, Gravesend; Dr. Brushfield, Brookwood; Dr. Alcock, Aldershot; Mr. Mason, London; Dr. Maclagan, Dundee; Dr. Wallace, Colchester; Mr. Walker, St. Andrews; Mr. Evans, Cardiff; Mr. Fendick, London; Messrs. Schacht and Co., Clifton; Mr. Whiffen, Battersea; Messrs. Bernard and Co., Leith; Dr. Cobbold, London; Mr. Palmer, Chester; Mr. Walton, Edinburgh; Mr. Beare, Carnarvon; Mr. Robinson, Chatham; Mr. Bridgeford, Sheffield; Mr. Kebbell, York; Dr. MacLaurin, London; Dr. Redmond, London; Dr. Lloyd, Worksop; Mr. Jackson, Sheffield; Dr. Wiltshire; Mr. Toller; Dr. Crombie, London; Dr. Buck, Ryde; Dr. Galbraith, Stirling; Dr. Thomson, Brookwood; Mr. Sharp; Mr. Wells, Coventry; Mr. Evans, West Bromwich; Dr. Smith, Kilburn; Mr. Ward, Uckfield; Dr. Clarke, Coleraine; Mr. Bennett; Mr. Tayler, Sheffield; Mr. Horniman, Barnsley; Mr. Morris, Malvern; Mr. Paton, Dublin; Mr. Johnson; Dr. Popp, Munich; Dr. Irwin, Granville, U.S.A.; Dr. C. Aplin, Heavitree; Dr. Warren, Paris; Mr. H. Eales; The President of the Royal Academy of Arts; Fair Play; J. G.; Scalpel; One who is neither a Court Physician nor Surgeon; Anti-Humbug; H. G. D.; Z. Z. Z.; A nird; M.D., London; M.B. Lond.; P.; A. J. M.; The Registrar-General of Edinburgh; The Rugby Local Board of Health; A Professional Working Bee; Caledonian; A Cambridge Graduate; Vaccine Lymph; A Layman; One who was Present; Zeator; X. Y. B.; Enquirer; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from — Mr. Morgan, Lichfield; Mr. Kerbey, Weobley; Mr. Thorp, Liskeard; Mr. F. Marley, Tadstone; Mr. Wheeler, Manchester; Mr. Ramsay; Mr. Mather, London; Mr. Eberle, Easingwold; Dr. Dobell, London; Mr. Boyall, Grantham; Mr. Symons, Hackney; Mr. Clouston, Hay; Mr. Barker, Kilcullen; Dr. Wilson, Worcester; Mr. Owston, Leicester; Mr. Wesler, Coventry; Mr. Macpherson, Glasgow; Mr. Peyton, Downham; Dr. Whidborne, Topsham; Dr. Watters, Stroud; Dr. Lister, Newton-le-Willows; A. L., London; C., Mile-end; Medicus, Bradford; Alpha, London; A. M. H.; A. B. C., Moreton-in-March; J. C.; Templar; Lancet, Ilminster; A. B., Sheffield; Medicus, Hull; A. A. A., Brighton; Medicus, Borough; J. C., Plymouth; C. B. L., Wenwood; H. W., London; A. B. C., Swansea; Theta, Sheffield; A. S. C.; G. A., Manchester; C. Y. B., London; K. K., Billingborough; M.R.C.S., Ossett; A. T. B.; L. T., Derby; Epsilon; A. B., London; A. B., Montrose.

Newcastle Chronicle, Sussex Express, Welshman, Western Morning News, Local Government Chronicle, Hastings and St. Leonard's News, Manchester Guardian, Cork Constitution, Surrey Advertiser, East London Observer, Birmingham Morning News, Metropolitan, Record, and *Essex Newsman* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 A.M. by Steward's Instruments.)

THE LANCET OFFICE, APRIL 27TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
April 21	29·54	W.	48	52	92	56	45	...	Cloudy
" 22	29·85	W.	48	50	92	64	45	...	Cloudy
" 23	30·02	S.W.	47	51	95	64	38	...	Overcast
" 24	30·04	S.W.	50	54	99	64	45	...	Overcast
" 25	30·08	W.	50	54	99	63	47	0·03	Cloudy
" 26	30·21	N.W.	46	51	102	64	43	...	Fine
" 27	30·02	S.W.	47	51	...	53	46	...	Overcast

Medical Diary for the ensuing Week.

Monday, May 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Annual Meeting.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Conversazione.—Annual Oration by Prof. Erasmus Wilson. Subject: "The Progress of Cutaneous Medicine during the present Century."

Tuesday, May 2.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Duncan, "On the Comparative Geology and former Physical Geographies of India, Australia, and South Africa."
PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following Specimens will be exhibited:—Double Mitral Valve; Multiple Ulcers of Stomach; Aneurism of Aorta opening into Bronchus; Malformed Hearts; Acute Aortitis causing Angina Pectoris; Specimens of Lardaceous Disease; Dissecting Varix of Femoral Vein; Pyæmic Abscesses in Lung, Cured; Pneumonia in Birds; Enlarged Tail Glands in Common Fowl; Larynx from Croup; Sarcoma of Sclerotic; Disease of Aorta; Tumour of Scalp growing in Sebaceous Cyst; Organs after Lithotrity; &c. &c.

Wednesday, May 3.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Dr. Cooper Rose: "A Contribution to the Statistics of Midwifery in General Practice." — Dr. Gervis, "On a Case of Puerperal Septicæmia." — Dr. Wiltshire; "Notes of a Case of Puerperal Septicæmia and Phlegmasia Dolens; Recovery."—Dr. Hugh Miller, "On a Case of Ovarian Dermoid Cyst."—And other communications.

Thursday, May 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Voltaic Electricity."
LINNEAN SOCIETY.—8 P.M. Dr. Cobbold, "On Fluke Parasites obtained by Dr. John Anderson from the Dolphins of the Ganges."
HARVEIAN SOCIETY.—8 P.M. Mr. Teevan, "On the Treatment of Gleet."

Friday, May 5.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—8 P.M. Weekly Meeting. — 9 P.M. Prof. Gladstone, "On Methods of Chemical Decomposition illustrated by Water."

Saturday, May 6.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Henry Woodward, "On Crustacea."

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